DOCUMENT RESUME

ED 387 703 CE 070 124

AUTHOR	Frideres-Poos, Jose; And Others
TITLE	Vocational Education and Training in Luxembourg.
INSTITUTION	European Centre for the Development of Vocational Training, Berlin (Germany).
REPORT NO	ISBN-92-826-8172-6
PUB DATE	94
NOTE	81p.
AVAILABLE FROM	UNIPUB, 4611-F Assembly Drive, Lanham, MD 20706-4391 (Catalogue No. HX-81-93-834-EN-C; $19).
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Continuing Education; Developed Nations; *Educational Finance; *Educational Practices; *Educational Trends; *Education Work Relationship; Employment Practices; Foreign Countries; Government Role; *Job Training; Postsecondary Education; Secondary Education; *Vocational Education
IDENTIFIERS	*Luxembourg

ABSTRACT

This monograph describes the approach to vocational training in Luxembourg. The study was compiled from available publications and interviews with representatives of the Ministry of Education and the chambers representing both sides of industry. The report shows that the distinguishing features of the vocational training system in Luxembourg are the emphasis on training alternating with work experience and the close collaboration between the authorities and the two sides of industry. The report contains the following information: (1) a presentation of the administrative, demographic, and economic background in which the training system in Luxembourg exists; (2) the structure of the Luxembourg education system and a brief historical review of the development of the training systems; (3) a presentation of the arrangements for initial training; (4) a presentation of the arrangements for continuing training; (5) an indication of where responsibilities for administering the system are located, including the influence of the social partners; (6) information on financing the system; and (7) an indication of present trends and developments. Five appendixes contain the following: a list of abbreviations, an address list, a list of relevant legislation in the development of the training system, a bibliography containing 12 citations, and a glossary of 11 terms. (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 387 703

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it

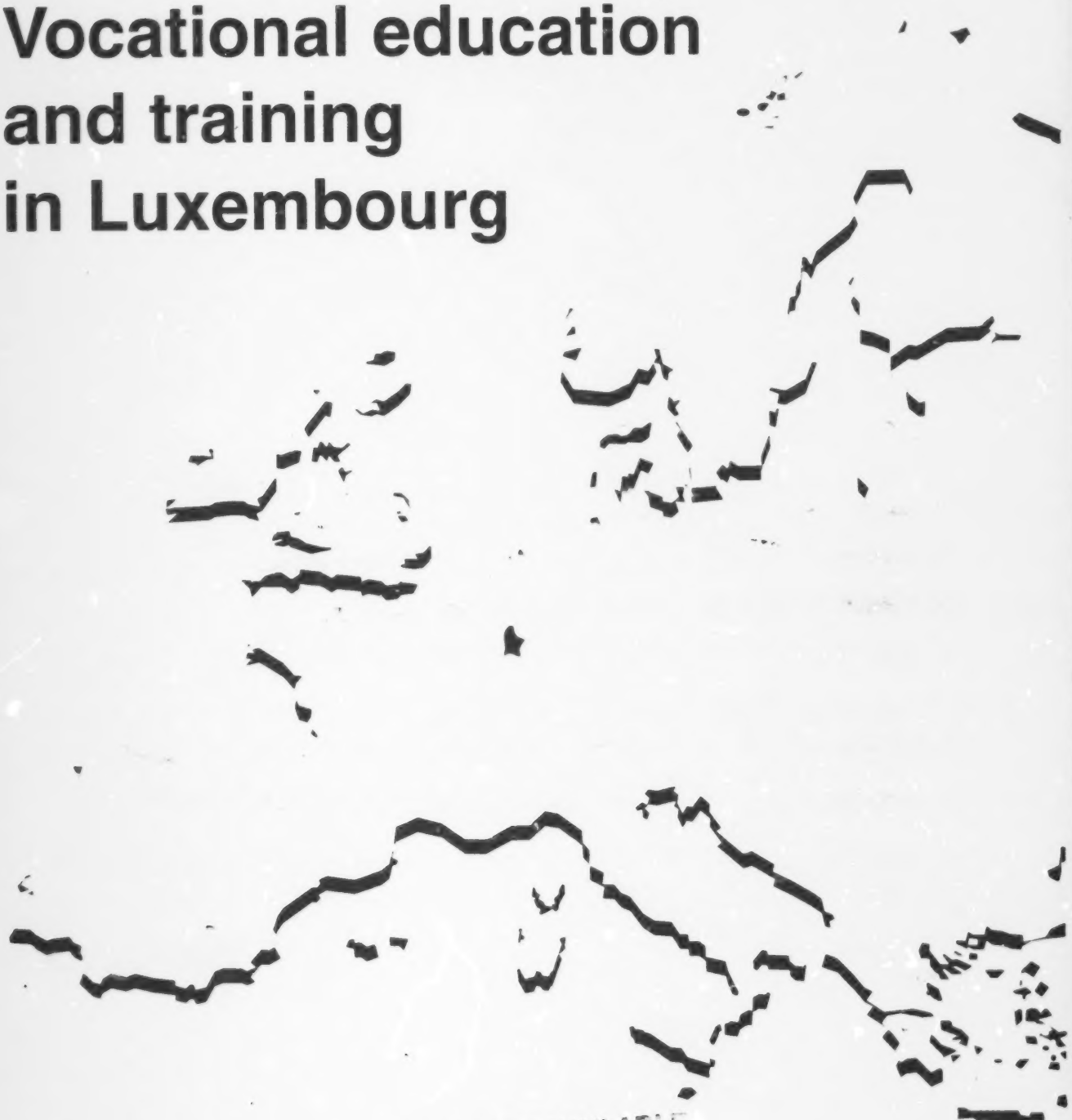
☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Vocational education and training in Luxembourg



BEST COPY AVAILABLE

CE 070 124

CEDEFOP

Vocational education and training in Luxembourg

This monograph has been prepared by

José Frideres-Poos,
Jean Tagliaferri,
teachers seconded to the Ministry of Education
Jeff Kintzelé
sociologist external consultant

on behalf of
CEDEFOP – European Centre for the Development of Vocational Training

Project coordinators: J. Michael Adams – CEDEFOP
F. Alan Clarke – CEDEFOP
under the responsibility of: Corrado Politi – Deputy Director – CEDEFOP

1st edition 1994

Published by the
European Centre for the Development of Vocational Training,
Bundesallee 22, **D-10717 Berlin**
Tel.: 49 - 30 + 88 41 20; Fax: 49 - 30 + 88 41 22 22; Telex: 184 163 eucen d

The Centre was established by Regulation (EEC) No 337/75 of the Council of the European Communities, last amended by Council Regulation (EC) No 1131/94 of 16 May 1994.

Cataloguing data can be found at the end of this publication

Luxembourg: Office for Official Publications of the European Communities, 1995

ISBN 92-826-8172-6

© ECSC-EC-EAEC, Brussels • Luxembourg, 1994

Reproduction is authorized, except for commercial purposes, provided the source is acknowledged

Printed in the Netherlands

CEDEFOP INTRODUCTION

IS THERE A SYSTEM?

Is there such a thing as a vocational training system? Strictly speaking, the answer is 'no', in that a system assumes a clear set of objectives and a logical and coherent framework for policy making and execution to achieve them. In reality, vocational training, sandwiched between the education system and the demands of the labour-market, caught between the different and varying social, economic, and political priorities of political parties and the social partners, and in the conflicts between different ministries and public powers, located at national, regional, and local level, does not in any of the Community Member States demonstrate the characteristics of a system.

Nevertheless, this volume and the 11 similar volumes on the other Member States constitute a third generation of CEDEFOP monographs on the training systems in the Member States. In preparing it, much has been learnt from the procedures used for, and the reaction to, the earlier monographs and the guide to the vocational training systems, published in 1983.

CONTENT OF THE REPORTS

The present monographs have been prepared by one organization or individual in each of the Member States, following a detailed specification by CEDEFOP of the contents required. These specifications were discussed and agreed at a meeting in Berlin in May 1991.

The basic structure was designed to incorporate:

(a) a presentation of the administrative, demographic, and economic background in which the training system exists;
(b) a brief historical review of the development of the training systems;
(c) a presentation of the arrangements for initial training;
(d) a presentation of the arrangements for continuing training;
(e) an indication of where responsibilities for administering the system are located, including the influence of the social partners;
(f) information on financing the system;
(g) an indication of present trends and developments, where authors were asked, in particular, to indicate how far the system has been, or would be, influenced by Community considerations such as the creation of the single European market, mutual recognition of qualifications, the intervention of the Structural Funds, and the Community's education and training programmes.

THE PROCESS OF PREPARATION

Authors were asked to send a copy of their draft report for comment to the members of CEDEFOP's Management Board in their country, and organizations with a major role in the training system. They were requested to incorporate the views expressed to the maximum extent possible. Whereas in general authors were asked to be descriptive and analytical, they were encouraged in the last section (point (g) above) to express their own views.

Initial draft monographs on each of the Member States were delivered to CEDEFOP in the period between September 1991 and March 1992. As experience had led us to expect, the documents received varied considerably in their approach, content, and presentation. Between January and October 1992 CEDEFOP had a series of intensive meetings with each of the authors, in order to ensure that certain elements were added to the reports and that they respected specific rules with relation to presentation. A novel and very beneficial feature of these meetings was participation in many cases by the translators responsible for translating the volume concerned.

Following these meetings the authors revised their report on the basis of what was said during the meeting, took account of comments received, and included references to recent developments in their country.

USE OF DIAGRAMS

It had been hoped that a large number of diagrams could be developed which would be common to all the monographs, and could then be used to simplify comparisons between the Member States by the reader. These could later become the basis of additional publications, such as a guide to the training systems or particular aspects of them. However, we have found that while it is relatively easy to obtain and present statistical information on the population, the employment market, and the economy, it remains difficult not only to obtain hard and comparable data on many aspects of the education and training systems of all 12 Member States, but also to present this information in a useful diagrammatic form.

WHO ARE THE USERS?

A question which came up repeatedly in the preparation of the monographs was: what is our primary user group? Our belief is that these monographs will be useful to a wide range of people active in vocational training, including policy-makers, practitioners, and researchers, but also to those seeking training in another country, and needing to know the framework in which it is provided. They are therefore, in particular, geared towards the needs of those who participate, or wish to participate in any of the Community programmes involving partnerships, visits, etc. Hence the emphasis on having monographs which are not more than 100 pages in length, and which do not require reference to other documents.

LINKS WITH OTHER COMMUNITY ACTIVITIES

CEDEFOP has been anxious that this work should be seen in the context of other Community activities with relation to information on the education and training systems. CEDEFOP has been glad to participate in the joint publication with Eurydice of *Structures of the education and initial training systems in the Member States of the European Community* available in English, French and German. The European unit of Eurydice, and CEDEFOP have also tried to ensure that the authors of the monographs on the training systems, and the Eurydice units providing information for the national dossiers on the education systems, should be in contact with each other. The European unit of Eurydice, and CEDEFOP similarly are continuing their efforts to ensure that the products of this work should be available to a wide audience, and with this in mind are investigating possibilities of holding the information on a common automated system.

In a more general way, as indicated above, CEDEFOP considers these monographs should be useful in supporting other activities of the Community in the field of training, and through this the implementation of the new provisions, contained in Articles 126 and 127 of the Maastricht Treaty.

The publication of these monographs does not mark the end of this activity. Arrangements will be made for their updating and their republication as appropriate and as resources permit. CEDEFOP would be extremely pleased to have comments on their usefulness and proposals on how they could be improved, from anybody who has occasion to use them.

Corrado Politi
Deputy Director

J. Michael Adams

F. Alan Clarke

Berlin, November 1992

CONTENTS

		Paragraph	Page
SECTION 1: GENERAL INFORMATION			
1.1	**Political and administrative structures**		**7**
1.2	**Population**		9
	Introduction	1.2.1	9
	The existing structure	1.2.2	9
	Demographic projections	1.2.3	13
1.3	**The economy**		**14**
SECTION 2: THE VOCATIONAL TRAINING SYSTEM			
2.1	**Education in Luxembourg**		**18**
	The structure of the Luxembourg education system	2.1.1	18
	The education system tomorrow	2.1.6	22
	Future trends in the school population	2.1.8	23
2.2	**History of the vocational training system**		**25**
2.3	**The initial vocational training system**		**28**
	The legal framework and organization of studies	2.3.1	28
	Evaluation and certification	2.3.15	36
	Passage from one stage to the next	2.3.19	37
	Certification	2.3.20	37
	Statistical data	2.3.21	38
	The vocational or 'apprenticeship' branch	2.3.24	40
	Measures to promote the integration of foreign children	2.3.25	41
	Advanced crafts training	2.3.27	43
	Post-secondary technical studies	2.3.31	44
2.4	**Continuing training**		**48**
	Legislative framework and objectives	2.4.1	48
	The Law of 4 September 1990	2.4.3	49
	Specific measures	2.4.5	50
	Training activities of the chambers of trades, commerce, etc.	2.4.6	50
	Sectoral training activities	2.4.7	50
SECTION 3: THE LEGISLATIVE AND FINANCIAL BACKGROUND			
3.1	**Legislation**		**52**
	The Ministry of Education	3.1.1	52
	Educational establishments	3.1.2	52
	Social partners	3.1.3	53
	The make-up of authorities involved at national level	3.1.4	54
3.2	**Finance**		**57**

CEDEFOP

CONTENTS

Page

SECTION 4: TRENDS AND PERSPECTIVES

4.1 New challenges **60**

4.2 Combating school failure **61**

4.3 The adaptation of training programmes to the requirements of the labour-market **62**

4.4 The trend towards greater flexibility in vocational training **63**

ANNEXES:

Annex 1
Abbreviations 64

Annex 2
Addresses 65

Annex 3
Relevant legislation 66

Annex 4
Glossary 69

Annex 5
Bibliography 70

CEDEFOP

AUTHOR'S PREFACE

This monograph on the vocational training system in Luxembourg was written during 1992 on the basis of available publications and interviews with representatives of the Ministry of Education and the chambers representing both sides of industry. As is the custom in Luxembourg, before publication the document was approved by the bodies concerned.

The education system in Luxembourg – and especially the vocational training system – has certain particular features. In view of the small size of its territory and its 'open-frontier' tradition in its relations with its neighbours, the Grand Duchy has never, for example, established a university offering full-length higher education courses. Similarly, the country's linguistic situation is a special one: Luxembourgers are trilingual, and from primary school onwards they learn Luxembourgish, German and French. To foster the integration of the extensive foreign population, the Ministry of Education has developed a special strategy in respect of foreign children.

The distinguishing features of our vocational training system are, no doubt, the emphasis on training alternating with work experience – a system originating in 1929 – and the close collaboration between the authorities and the two sides of industry.

This study is the work of Madame José Frideres-Poos, Mr Jean Tagliaferri – both teachers seconded to the Ministry of Education – and Mr Jeff Kintzelé, sociologist (outside consultant).

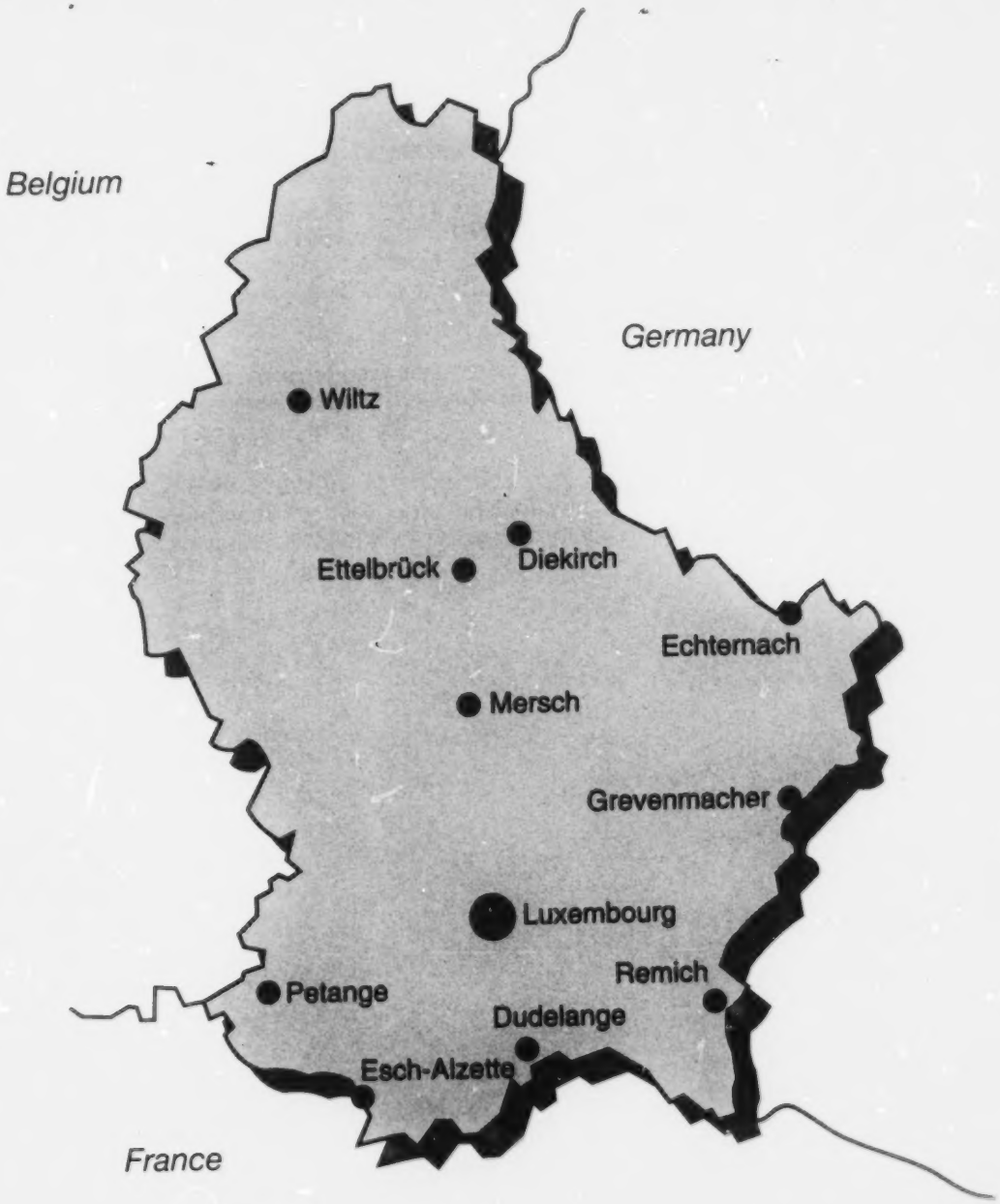
Ministry of Education

Luxembourg, December 1992

CEDEFOP

GENERAL INFORMATION

The Grand Duchy of Luxembourg



BEST COPY AVAILABLE

CEDEFOP

1.1. Political and administrative structures

1.1.1
Luxembourg is a constitutional monarchy with a parliamentary democratic system. Executive power is vested in the Grand Duke, who exercises that power through the intermediary of the government. Grand-ducal decisions must be countersigned by a member of the government, who thereby assumes political responsibility therefor. Legislative power resides jointly in the Grand Duke and the Parliament (Chambre des Députés), while the judiciary enjoys complete independence.

1.1.2
Luxembourg is, by law, a trilingual country. The Law of 24 February 1984 stipulates that the national language is Luxembourgish (a Franco-German dialect spoken by the entire population). The official languages are French and German, which are the vehicular languages for communication with foreigners and the written languages of legislation and administration. With about 70% of its population urbanized and an economic structure based on the secondary and tertiary sectors, Luxembourg takes its place among the post-industrial countries of Europe.

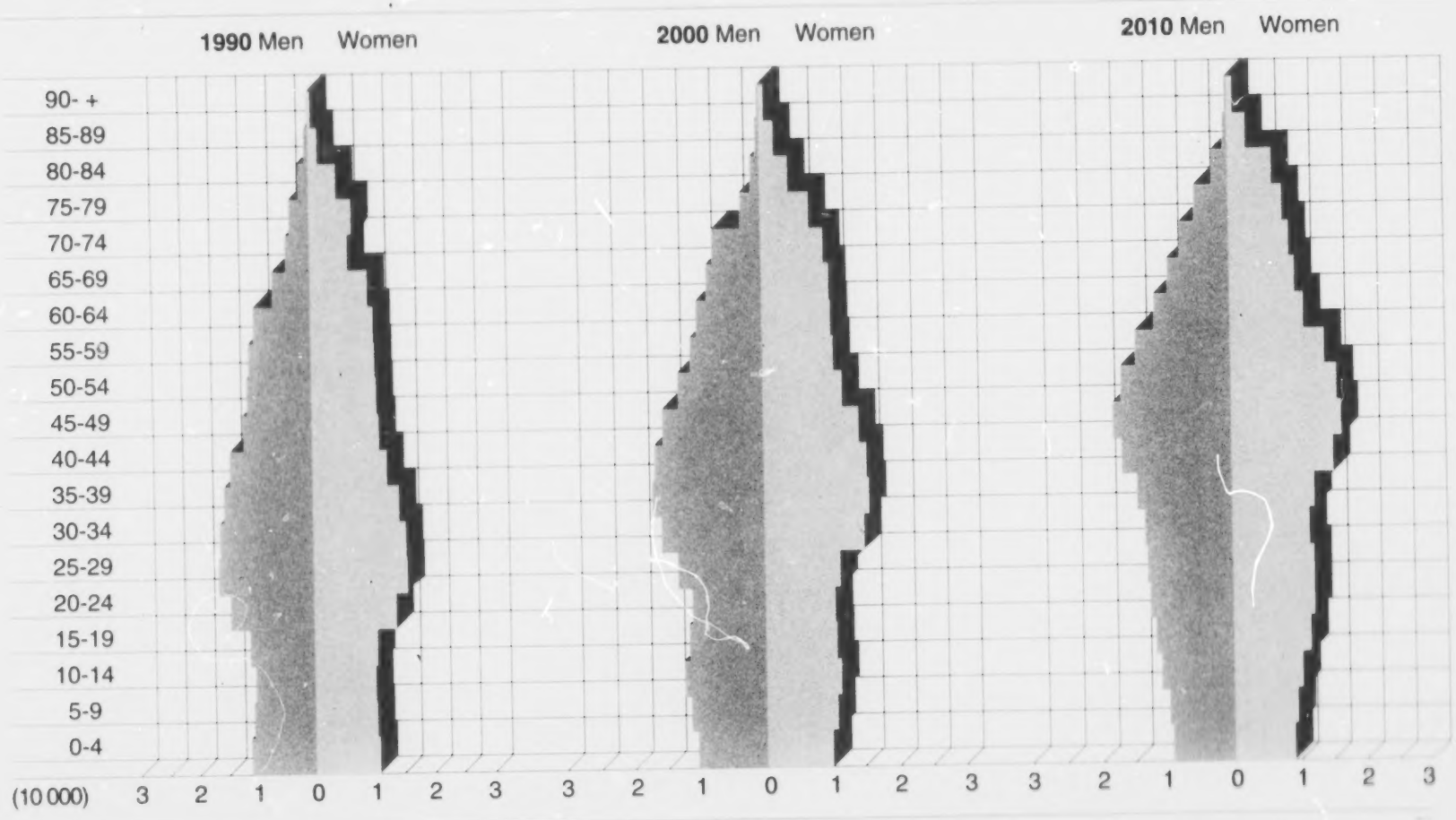
1.1.3
Luxembourg is the smallest of the 12 member countries of the European Community: situated between Belgium, Germany and France, Luxembourg is the only Community country with no direct access to the sea.

1.1.4
Small in area (2 586 km^2), Luxembourg has no provinces or *départements*, the *commune* (local administrative area) corresponding to one of the few applications of the principle of decentralization. In the education system, the *commune* acts as a partner *vis-à-vis* the Ministry of Education only in respect of preschool education, primary education and certain aspects of adult education.

1.1.5
The field of competence of the Ministry of Education covers the entire education system, from preschool education to university. It should be noted that as regards vocational training, the Ministry of Education is responsible for both classroom training and in-house training, though without prejudice to the field of competence of the chambers.

Age Structure

Estimate as at 1 January 1990 – Forecast 2000 and 2010 (Luxembourg)



Source: Eurostat: Demographic Statistics 1992.

1.2 Population

1.2.1
According to the most recent census (January 1992), the Grand Duchy has 390 500 inhabitants.

The resident foreign population numbers over 115 000, or almost 29.5% of the total. The overwhelming majority of resident foreigners (more than 90%) are nationals of EC countries, mainly Portugal and Italy.

The existing structure

1.2.2
Luxembourg's overall population has grown steadily since 1947: however, the birth rate of Luxembourg nationals is very low, and has failed to maintain the replacement level since 1973. Luxembourg has always relied on the influx of foreigners to offset this demographic deficiency, and this is the real cause of population growth in the country. However, the high proportion of foreign residents raises a number of problems regarding the education of immigrants' children. Later we shall examine the consequences of this phenomenon.

Population trends (Luxembourg nationals)

1 January	Population	Births-deaths	Net migration	Naturalizations or options for Luxembourgish nationality	Net change
1987	272 100				
		- 646	+ 217	+ 512	+ 83
1988	272 100				
		- 249	+ 161	+ 917	+ 829
1989	273 000				
		- 412	+ 10	+ 780	+ 378
1990	273 400				
		- 89	+ 155	+ 893	+ 959
1991	274 400				

Source: Statec.

1

Total population (Luxembourg and foreign nationals)

1 January	Total population	Luxembourg nationals	Foreign nationals	Foreign nationals, %
1987	369 400	272 100	97 300	26.3
1988	372 000	272 200	99 800	26.8
1989	375 800	273 000	102 800	27.4
1990	379 300	273 400	105 900	27.9
1991	384 400	274 400	110 000	28.6
1992[1]	390 500	275 500	115 000	29.5

[1] Preliminary estimate.

Source: Statec.

Foreign residents in Luxembourg

Nationality	1 January 1987	1 January 1991
Total foreigners	97 300	110 000
French	12 600	12 950
Belgians	8 500	9 500
Germans	8 900	8 750
Italians	20 700	19 900
Portuguese[1]	29 000	37 600

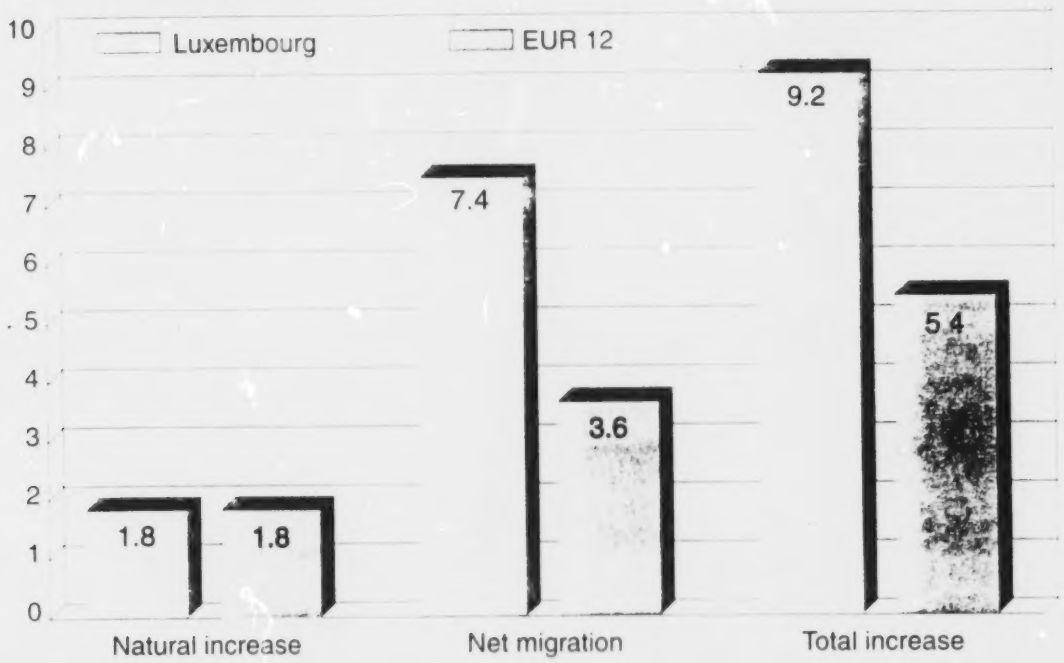
[1] Estimate 1.1.1992: 40 000.
Source: Statec.

The population distribution is very uneven:

- 56% of the population is concentrated in 13% of the territory covered by the triangle 'capital/south/west';
- the north of the country, corresponding to 35% of the territory, accounts for only 9% of the population.

This imbalance is most marked as regards the capital, partly because of the decline of the steel industry in the country's south and partly as a result of the development of the city as a European and financial centre. At the same time, the number of people leaving rural areas is increasing.

Change in the population in 1989 (per 1 000 inhabitants)



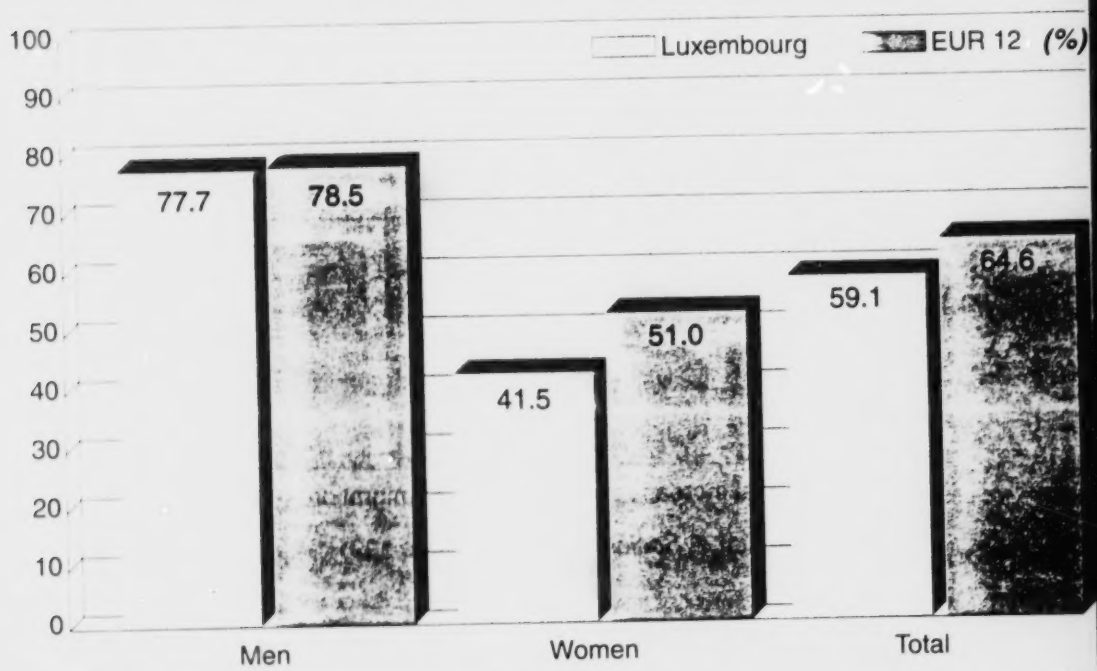
Source: Eurostat: *A Social portrait of Europe* 1991.

Population aged 14 to 64 according to economic status 1983/1987/1990 in %

Source: Eurostat: Labour force surveys.

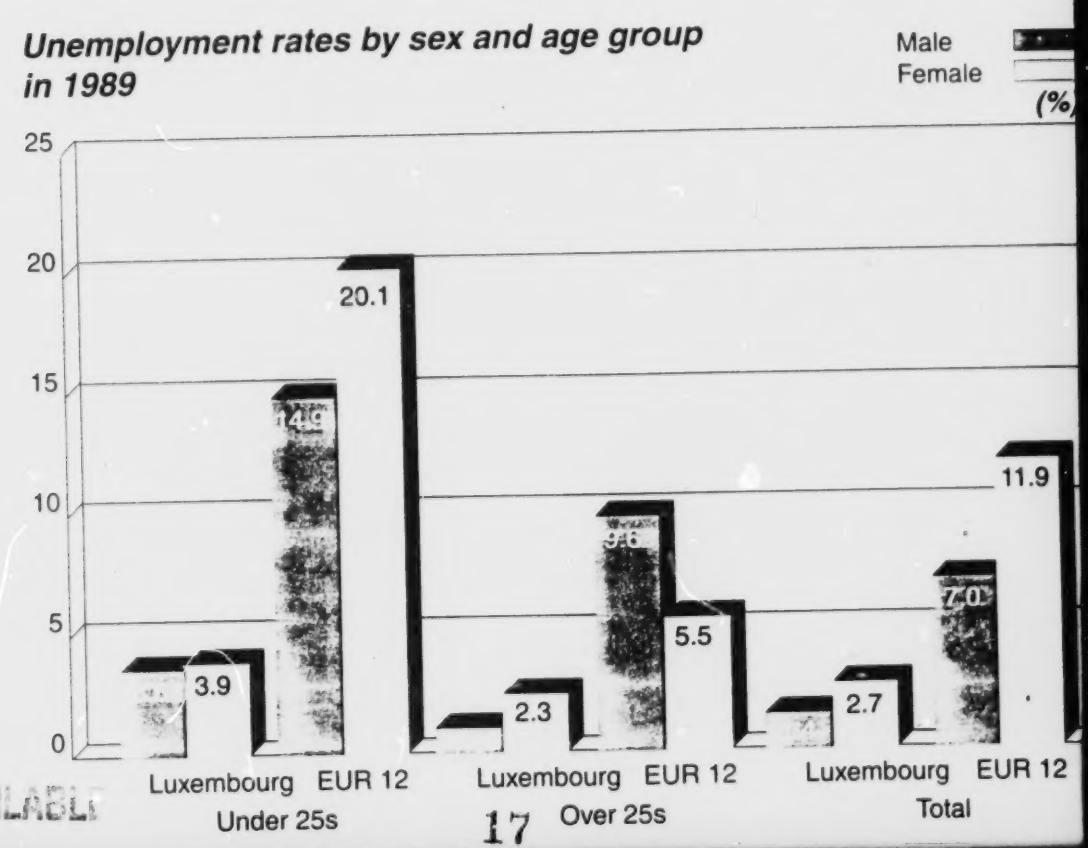
1

Activity rate of population aged 14 to 64 in 1988



Source: Eurostat: A Social Portrait of Europe 1991.

Unemployment rates by sex and age group in 1989



BEST COPY AVAILABLE

Demographic projections

1.2.3
Statec's most recent projections foresee an appreciably lower mortality rate, a higher net immigration rate (about 1 500 per year) and a decline in the number of foreigners (about 400 per year) acquiring Luxembourg nationality (it is reasonable to assume that the appreciable extension of the rights of resident EC nationals will make the acquisition of Luxembourg nationality appear less desirable). The proportion of foreign residents in the total population will be around 32%.

Forecast 1990-2020 (extract)

Year	Total population (1000)	%	Luxembourg nationals (1000)	%	Foreign nationals (1000)	%
1992	382.1	100	272.1	71.2	110.0	28.8
1995	387.4	100	271.3	70.0	116.1	30.0
2000	394.4	100	268.6	68.1	125.8	31.9
2010	403.0	100	260.0	64.5	143.0	35.5
2020	409.5	100	251.6	61.4	157.9	38.6

Source: Statec Bulletin 4/91.

1.3 The economy

1.3.1
In 1990, Luxembourg was in third place among EEC countries (after Denmark and Germany) with a per capita GDP of ECU 18 515. In the same year the GNP rose to LFR 354.1 billion.

The GDP rose by 6.3% in 1989, 2.3% in 1990 and 3.1% in 1991 (ESA figures), while forecasts for 1992 suggested an increase of around 3.2% (Statec Bulletin, 1/92).

The Luxembourg economy is becoming increasingly oriented towards the services sector. The contributions of the respective sectors to employment and the GDP are shown in the table below (OECD figures):

Contribution to employment	**1980**	**1989**	*(%)*
Agriculture	5.4	3.4	
Industry	38.1	31.2	
Services	56.5	65.4	

Contribution to GDP	**1980**	**1989**	*(%)*
Agriculture	2.6	2.1	
Industry	38.7	37.1	
Services	58.7	60.8	

1.3.2
The unemployment rate in Luxembourg has traditionally been very low, fluctuating around 1.5%; it should be noted, however, that the unemployment rate for women, which stood at 1.6% in 1989 is higher than that for men (1.1%). Young people aged 16 to 25 are affected by unemployment to a greater extent (3%) than the other age groups in the working population.

1.3.3
The activity rate for women has been rising steadily for the past 10 years (47.6% in 1989 against 39.9% in 1980).

1.3.4
Finally, the high proportion of frontier workers in the Luxembourg labour-market should be noted. On 1 January 1990 the working population totalled 189 600, of whom 33 700 – or about 20% – were frontier workers (this figure includes 8 600 employees of the international institutions).

Sector	1970	1980	1985	1990
Agriculture, forestry and fisheries	13.6	8.7	7.0	6.2
Energy and water	1.4	1.5	1.3	1.4
Extractive industries and manufacturing	46.6	42.1	38.7	37.5
of which: minerals and metals	25.0	19.7	15.4	11.6
iron ores	1.3	0.4	-	-
iron and steel industry products	23.5	17.7	13.1	9.1
Building and civil engineering	13.9	16.4	14.0	18.9
Market services	49.0	68.7	76.9	98.9
of which: credit and insurance institutions	4.3	8.1	10.9	17.0
Non-market services	15.7	20.9	23.0	26.2
of which: public authorities	13.1	17.1	18.4	20.7
Total employment	**140.2**	**158.2**	**160.9**	**189.1**

Source: Statec, *Statistical yearbook 1991.*

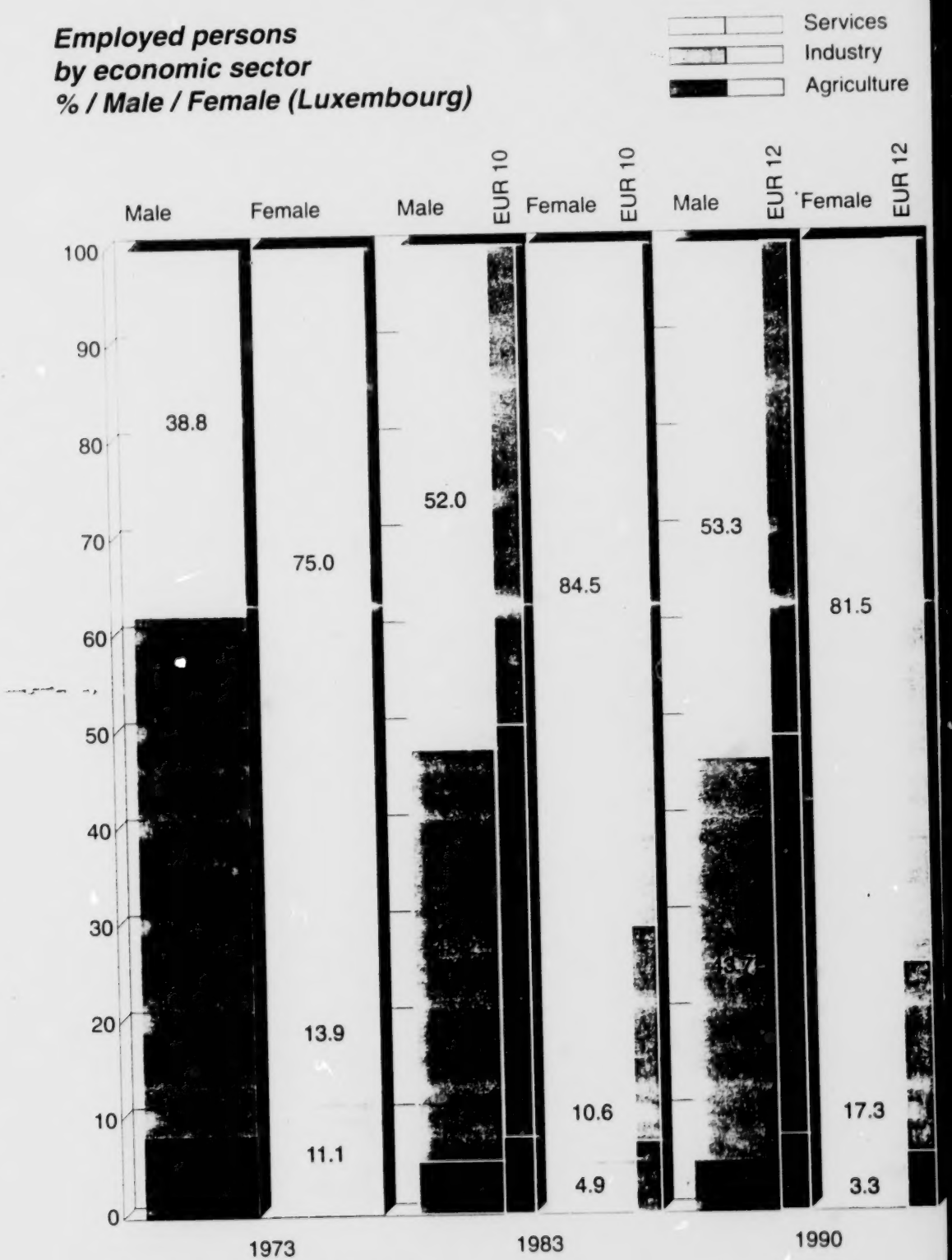
Persons employed in industry and services by broad NACE group

(%)	1983	1987		1990	
	L	L	EUR 12	L	EUR 12
Industry					
Energy and water	1.3	1.0	2.0	1.3	1.5
Mineral extraction, chemicals	12.7	11.3	4.5	9.0	3.6
Metal manufacture, engineering	4.0	4.2	11.6	3.3	10.0
Other manufacturing industries	7.9	7.5	11.5	7.1	10.4
Building and civil engineering	9.5	9.3	7.2	8.6	7.8
Services					
Distributive trades, hotels	18.6	18.4	16.0	20.2	18.9
Transport and communication	7.2	7.3	6.4	6.6	5.9
Banking, finance, insurance	9.0	10.8	7.7	12.4	8.0
Public administration	9.7	9.4	9.7	8.0	7.6
Other services	19.7	20.2	20.9	19.6	19.7

Source: Eurostat: Labour force surveys 1983, 1987 and 1990.
NB: NACE = Classification of economic activities in the European Community.

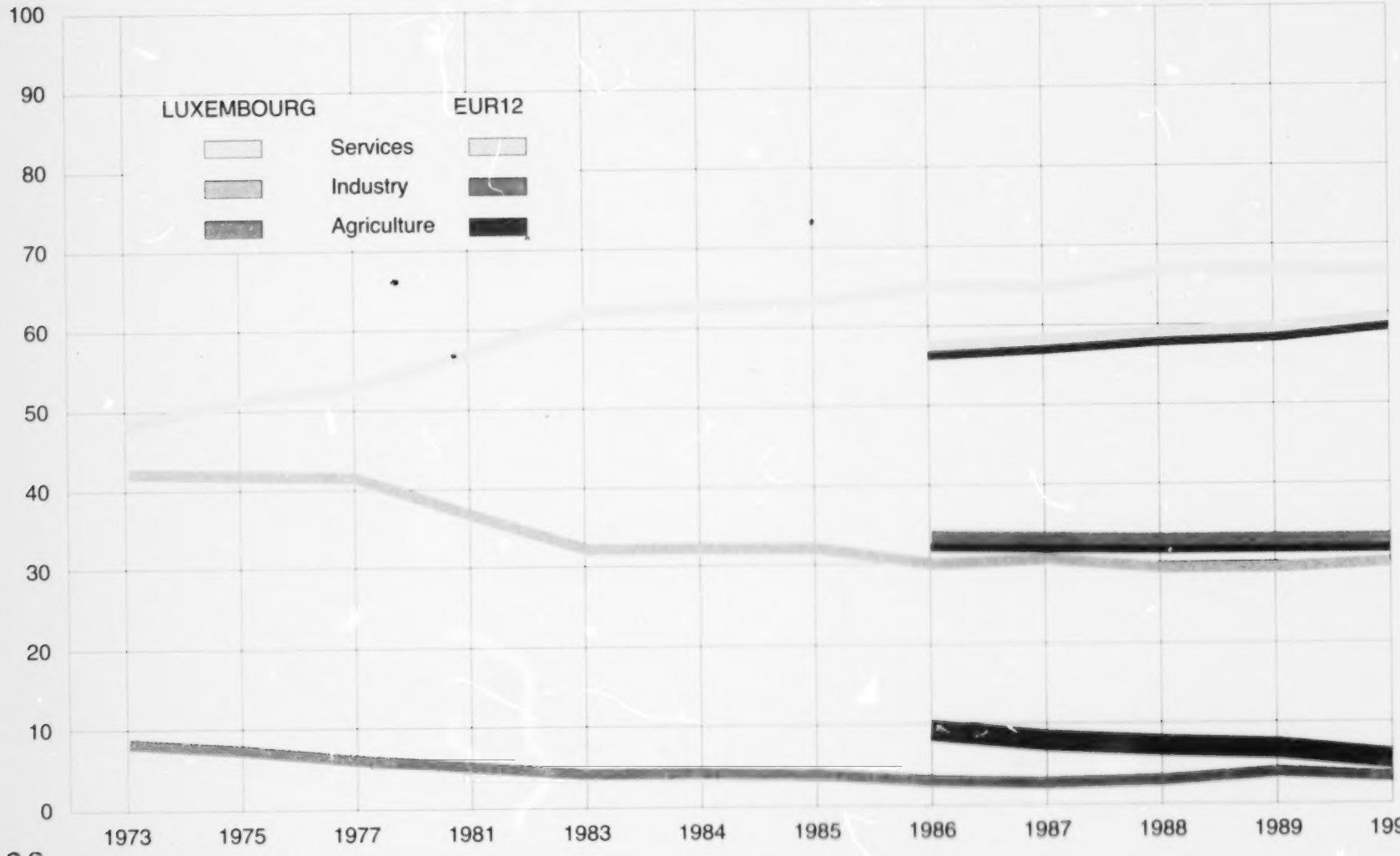
1

Employed persons
by economic sector
% / Male / Female (Luxembourg)



Source: Eurostat: *Labour force surveys.*

Employment by economic sector



Source: Eurostat: Labour Force Surveys 1980-91.

THE VOCATIONAL TRAINING SYSTEM

2.1 Education in Luxembourg

The structure of the Luxembourg education system

2.1.1
To provide a better understanding of the position of vocational training in the Luxembourg system, a brief description of the school system will now be given. In Luxembourg, compulsory schooling covers nine years from age 6 to age 15; in addition, preschool education is compulsory from age four. In other words, following compulsory schooling from age four pupils enter primary school at age six and may terminate their education at age 15 at the earliest. The structure of the education system is as follows:

2.1.2
Preschool education
covers two years and concerns children aged between four and six.

Primary education
covers six school years and is compulsory for all children. Primary education classes are attended by both boys and girls. Special reception classes are organized for the many foreign children; for those suffering from handicaps or other impairments, special education classes are provided.

Post-primary education
On completing the sixth year of primary school, students participate in an examination for admission to secondary education: this examination, which is organized at national level, makes it possible to channel students towards the first year of general secondary or technical secondary education, or alternatively towards extended primary education. The latter is intended for pupils failing the examination in question.

Extended primary education
lasts for three years; no entrance examination is required. There are at present three streams: a seventh year preparatory course leading to access to technical secondary school; extended primary education in the strict sense, covering three years (the seventh, eighth and ninth years of schooling) while maintaining the possibility of entering technical secondary school; and finally, extended special education classes. Measures to reform extended primary education are at present under discussion.

Secondary education
The Law of 10 May 1968 on the reform of secondary education introduced the principle of coeducation. This law further stipulates that secondary education is designed to prepare students, both boys and girls, for university-level studies on the basis of a thorough general education.

CEDEFOP

2.1.3
Under the Law of 22 June 1989, general secondary education covers seven years and comprises three levels, as follows:

- the first stage, covering the first, second and third years;
- the multi-disciplinary stage of the advanced section (fourth and fifth years);
- a specialization stage (sixth and seventh years).

From the second year onwards, students can opt for the classical or modern branches; a further subdivision occurs after the third year, when students must chose between arts and science studies. In the sixth year, students finally opt for a particular specialization, and from this moment on the choice becomes irrevocable.

2.1.4
The law provides for the following sections within the **arts branch**:

- section A1, in which languages and the human sciences are the principal subjects;
- section A2, in which human and social sciences are the principal subjects;
- section E, in which the plastic arts are the principal subject;
- section F, in which music is the principal subject, involves concurrent attendance at a conservatory or school of music.

The law provides for the following sections in the **science branch**:

- section B, in which mathematics and physics are the principal subjects;
- section C, in which the natural sciences are the principal subjects;
- section B, in which economics (including mathematics) is the principal subject.

Technical secondary education will be examined in detail in paragraph 2.3.1.

2.1.5

• **Post-secondary education**

After passing the final examination on concluding their secondary or technical secondary education, students can continue their studies in Luxembourg or abroad. In Luxembourg, post-secondary school studies comprise the following:

Age	Training courses					
	University courses	Short courses	ISERP	IST	IEES	BTS
21/22			third year	third year	third year	
20/21		second year	second year	second year	second year	second yea
19/20	first year	first year	first year	first year	first year	first year

• **University courses**

A particular feature of the education system in the Grand Duchy is the lack of a complete four-year university course. Only first year courses are organized in Luxembourg, in the following disciplines: law and economics, philosophy and letters, mathematics and natural sciences. This tuition is given at Luxembourg University Centre, and students subsequently pursue their studies at foreign universities.

University courses available include supplementary courses in Luxembourg law and company auditing; in addition a teacher-training department offers courses for aspirant secondary school teachers who have completed their university studies.

• **Short courses**

Since the 1983/84 academic year (from October to June) a short course in business management lasting for two years has been offered by the Department of Law and Economics of the Luxembourg University Centre. The course leads to the Diploma in Advanced Business Management Studies and is designed to prepare students for middle-management posts in Luxembourg firms, especially in the banking, insurance, financial, auditing, commercial and small business sectors.

• **The College of Technology**

(Institut Supérieur de Technologie – IST) will be described in detail in paragraph 2.3.33.

• **The Institute for Educational Studies and Research**

(Institut Supérieur d'Etudes et de Recherches Pédagogiques – ISERP) was set up by the Law of 6 September 1983, which stipulates (Article 1) that aspirant preschool and primary school teachers must pursue their studies at the Institute for Educational Studies and Research, in collaboration with the Luxembourg University Centre. The courses in question last for three years.

• **The Institute for Educational and Social Studies** (Institut d'Etudes Educatives et Sociales – IEES), which was established by the Law of 6 August 1990, has the following two sections:

- an advanced studies section, leading to the Higher Diploma in Community Education;
- a section preparing students for the Community Education Certificate.

The IEES offers two types of courses: full-time (lasting for three years) and part-time, for students in employment (lasting for six years).

For admission to the advanced courses leading to the Higher Diploma in Community Education (youth service), candidates must hold either the Secondary School Leaving Certificate or an equivalent qualification, or the Commmunity Education Certificate (Law of 6 August 1990). Candidates must also possess an adequate knowledge of the three languages in general use in the country: Luxembourgish, French and German.

For admission to courses leading to the Community Education Certificate, candidates must have successfully completed the fifth year of general or technical (paramedical and social studies) secondary education, or alternatively have completed other studies recognized as equivalent by the Ministry of Education (in general this implies studies entitling the student to access to the sixth year of technical secondary education). In addition, candidates must have an adequate knowledge of the three languages in general use in Luxembourg: Luxembourgish, French and German.

• **The Advanced Technician's Certificate** (brevet de technicien supérieur – BTS) will be described in detail in paragraph 2.3.32.

• **The Centre for Educational Psychology and Guidance** (Centre de psychologie et d'orientation scolaire – CPOS), established by the Law of 1 April 1987, has the following tasks:

(i) providing psychological and educational guidance for secondary, technical secondary and extended primary school students and collaborating in the provision of educational guidance for sixth year primary school pupils;

(ii) assisting students going on to higher education in their choice of studies and educational establishment and continuing to provide any assistance needed during the course of their studies;

(iii) facilitating the transition from school to working life for young people.

The education system tomorrow

2.1.6
A brochure published in 1991 by the Ministry of Education, *Demain l'école* (The school tomorrow) analyses the Luxembourg education system in the context of a changing world. The authors give two reasons for their views on the medium- and long-term future of the system:

- the particular features of Luxembourg's social, economic, geographical and cultural situation impose constraints and raise problems for its education system which place it in an exceptional position in the European context;

- the Luxembourg education system has two specific features: the bilingual (some would say trilingual) tradition and the exceptionally high proportion of immigrant children. These two factors constitute at the same time an asset and a heavy burden for the Luxembourg system.

2.1.7
Any discussion on education policy must necessarily revolve around two major themes:

- a socioeconomic concept which sees education as an important cog in a system which determines its nature and on which it in turn exercises a determining influence. According to this view, education must respond to certain demands (social, economic, technological, demographic and cultural) while at the same time developing an internal momentum capable of influencing those demands;

- a humanist concept which sees education as an autonomous system essentially concerned with the question: what type of man (or woman) do we need to form at a given point in history?

Recent trends in the school population

Number of pupils

Type of education	1987/88		1988/89		1989/90			1990/91		
	Public	Private	Public	Private	Public	Private	Foreign	Public	Private	Foreign
Preschool	7 983	-	7 977	-	7 965	-	-	8 354	-	-
Primary/ extended primary	24 879	500	24 996	534	26 538	575	-	26 612	633	-
Secondary	7 206	506	7 258	475	7 518	486	692	7 589	509	745
Technical secondary	12 769	1 574	11 976	1 562	11 740	1 564	462	11 341	1 599	496
Total	**52 837**	**2 580**	**52 207**	**2 571**	**53 761**	**2 625**	**1 154**	**53 896**	**2 741**	**1 241**

Future trends in the school population

2.1.8
The forecasts below are based on parameters subject to change, in particular the net migration figure for the foreign population, the birth rate and the school enrolment rate in public institutions. The forecasts given derive from projections of current trends.

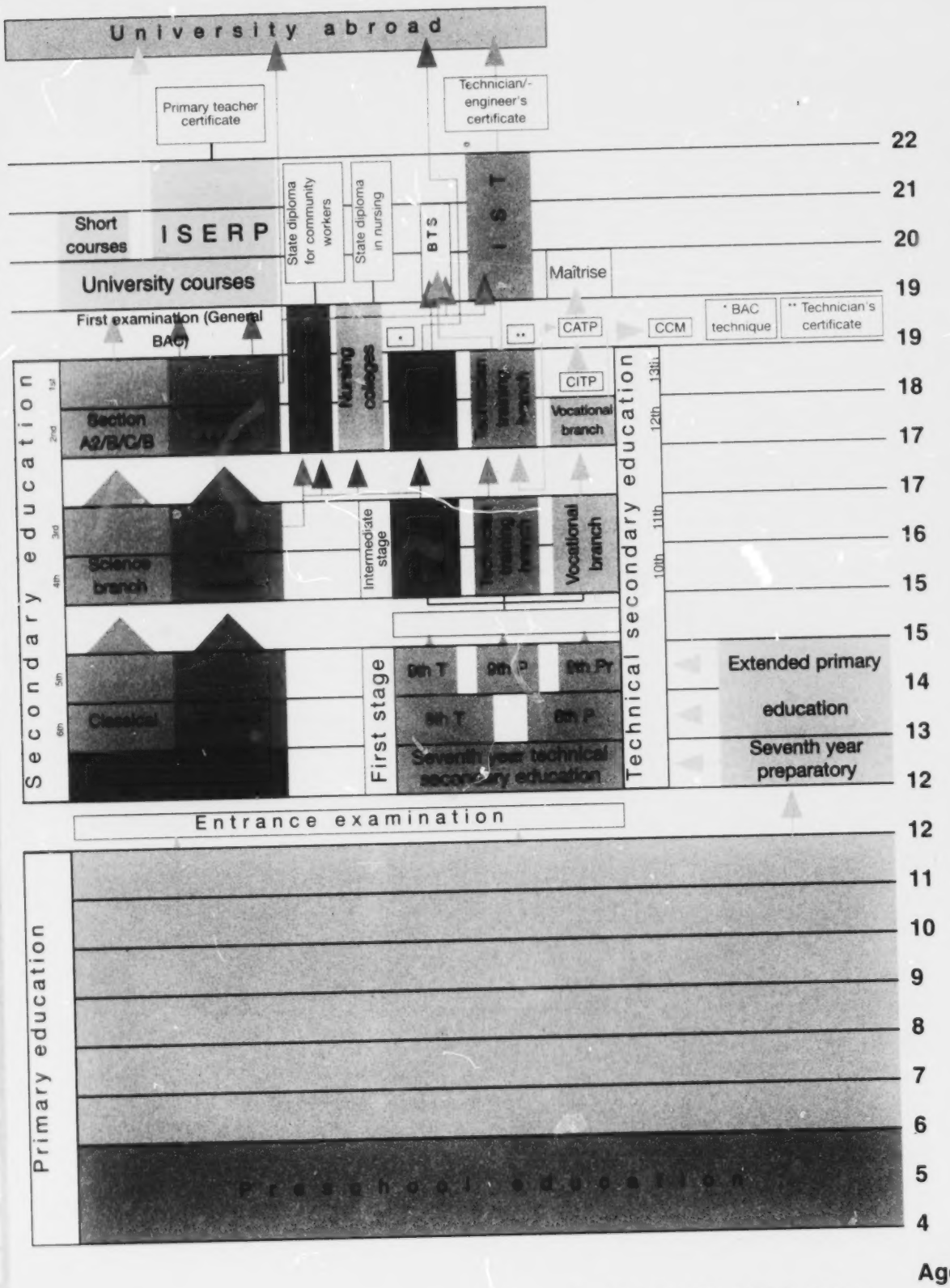
1. **Preschool education**: up to the year 2000 the preschool population will be stable at about 8 250; subsequently it will decline to about 6 900 by the year 2010. The proportion of foreign children will decline, to stabilize at around 30%.

2. **Primary education**: the primary school population (age 6 to 12) will rise from 28 665 to 29 700 from 1987 to 2 000, and will subsequently decline to 25 600 by the year 2010. The proportion of foreign pupils will decline, to stabilize at around 30%.

3. **Secondary education (public sector)**: the secondary schools will lose about 1 300 pupils by the year 2000; the population will then stabilize at about 7 000. The proportion of foreign pupils, which stood at 12.7% in 1987/88, will rise slightly.

4. **Technical secondary education (public sector)**: the technical secondary school population will decline by about 1 500 by the year 2000 and will then hold steady at about 9 800 until the year 2010. The proportion of foreign pupils will hold steady at around 30%.

2 THE VOCATIONAL TRAINING SYSTEM



Source: MEN.

BEST COPY AVAILABLE

CEDEFOP

2.2 History of the vocational training system

2.2.1
The number of vocational training schools and training centres has been gradually increased to meet the need to provide part-time schooling for apprentices, made obligatory under the Law of 5 January 1929 on apprenticeship, as amended by the Grand-ducal decree of 8 November 1945.

2.2.2
Historically, the legislation establishing the various schools in the agricultural (Law of 23 February 1884), crafts (the Crafts School, set up by the Law of 14 March 1896, which became the Arts and Crafts School in 1958), and vocational sectors (the Vocational School of Esch-sur-Alzette has its legal basis in the Law of 18 July 1924), together with the provisions of the Law of 5 January 1929, form the basis of Luxembourg legislation governing technical and vocational secondary education.

2.2.3
Under the Law of 1 December 1953 vocational education was generalized. The law stipulates that vocational education designed to prepare students for vocational proficiency examinations shall be given to students of trades in the crafts, commercial and industrial sectors at the State vocational school of Esch-sur-Alzette or in the vocational training centres.

2.2.4
The Law of 16 August 1965 introduced a five-year course of general intermediate secondary education for boys and girls preparing for lower and middle-grade posts in the public and private sectors (see Lex Kaiser for a detailed historical study).

2.2.5
The Law of 21 May 1979 consolidated the existing legislation and introduced technical secondary education. The law governs:

- the organization of vocational training and technical secondary education;
- the organization of continuing vocational training.

This law has the considerable merit of establishing a coordinated and rational system for technical education. The standardization of the related structures (an observation and assessment stage, an intermediate stage with vocational and technical branches, and an advanced stage with the following sections: administration, general technical education and technician training) provides technical secondary education with the uniformity which was hitherto lacking. This standardization, combined with the harmonization of qualifications obtained via different training channels, has facilitated the transition from one training channel to another and done away with the barriers which often existed between the various establishments.

The Law of 1979 also strengthened collaboration between the world of education and the chambers. Finally, by reducing the emphasis on the purely vocational aspects during the first three years of technical secondary school, students were offered a broader general education.

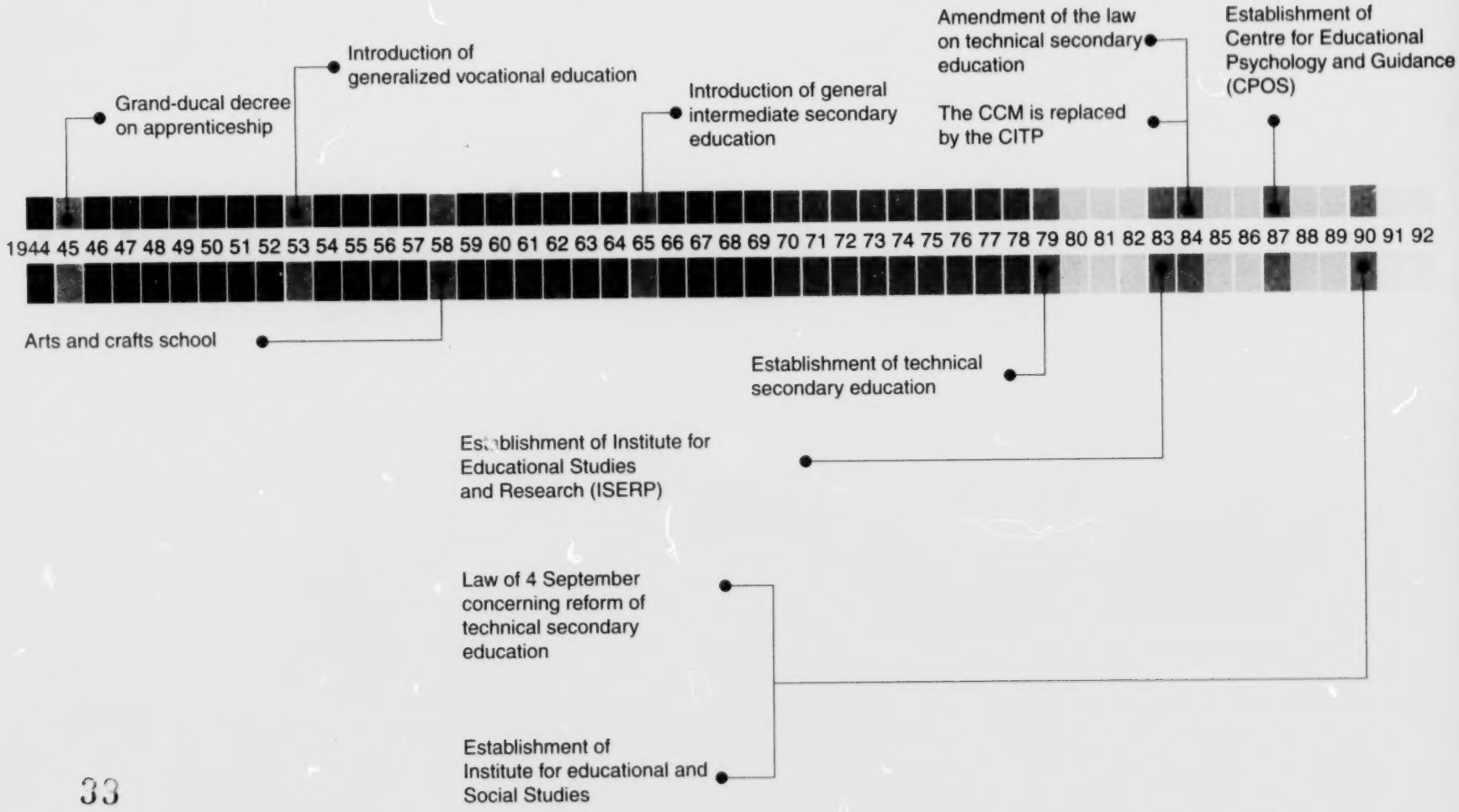
2.2.6
The Law of 21 May 1979 was first amended by the Law of 30 May 1984; under the latter, the structure of technical secondary education became more flexible. For example, it became possible, if necessary, to modify the standard duration of the intermediate stage, hitherto fixed at three years.

Whilst under the 1979 Law apprenticeship was organized in accordance with the training/work-experience system, the law of 1984 introduced the option of training exclusively in schools or centres in the event of a lack of apprenticeship places and a persistent demand for qualified personnel in a given trade.

In addition, the Law of 1984 facilitated access to training leading to the Manual Proficiency Certificate (CCM), which has since been replaced by the Preliminary Technical and Vocational Certificate (CITP) (see 2.3.25).

2.2.7
The Law of 4 September 1990 recasts and coordinates the Law of 21 May 1979. The principal objectives of the new law are to increase the number of young people attending vocational training leading to a qualification, to ensure better guidance provision, give vocational training an improved image and prepare for the next century.

Evolution of the training system in Luxembourg


Amendment of the law on technical secondary education
Establishment of Centre for Educational Psychology and Guidance (CPOS)
Introduction of generalized vocational education
Grand-ducal decree on apprenticeship
Introduction of general intermediate secondary education
The CCM is replaced by the CITP
1944 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92
Arts and crafts school
Establishment of technical secondary education
Establishment of Institute for Educational Studies and Research (ISERP)
Law of 4 September concerning reform of technical secondary education
Establishment of Institute for educational and Social Studies

2.3 The initial vocational training system

The legal framework and organization of studies

The Law of 4 September 1990

2.3.1
Article 1 of the Law of 4 September 1990 stipulates that technical secondary education prepares both boys and girls, in close cooperation with industry, for working life by providing them with a general, social, technical and vocational education. It also prepares students for higher education studies.

Students are admitted to technical secondary education from age 12: the length of the course depends on the branch and the trade or vocation chosen.

2.3.2
Technical secondary education has three stages:

a **first stage** lasting for three years, which begins after the sixth year of primary studies;

an **intermediate stage** comprising:
- a vocational branch, which normally lasts for three years;
- a technician training branch, normally lasting for two years;
- a technical branch, which normally lasts for two years;

an **advanced stage** comprising:
- a technician training branch, normally lasting for two years;
- a technical branch normally lasting for two years.

2.3.3
First stage technical secondary education

The first stage has three objectives:

- to broaden and deepen basic knowledge;
- to guide students towards further training and prepare them for studies in the respective branches of the intermediate stage;
- to facilitate the transition to working life.

2.3.4
The first stage covers three years:

- an observation year, providing students with a basic multidisciplinary education and broadening knowledge acquired earlier;

- an assessment year, extending the basic multidisciplinary education and guiding students in their choice of further studies and occupation;

- a pre-specialization year preparing students for access to apprenticeship or the pursuit of studies in the various branches and divisions of the intermediate stage.

2.3.5
The subjects taught

The first stage curriculum essentially concerns general education and includes the following subjects:

- languages;
- mathematics;
- natural sciences;
- human sciences;
- technologies;
- the arts;
- music;
- physical education and sports;
- religious instruction and civic education.

In addition, the curriculum includes practical and manual work designed to facilitate guidance, and activities to facilitate the transition to working life.

Tuition in the assessment and pre-specialization years is organized on flexible lines; branches, curricula, teaching levels and methods, the number of lessons per week in each branch and the advancement criteria may therefore differ.

Supplementary tuition can be organized to promote students' mobility between branches or levels.

2.3.6
Intermediate stage technical secondary education

The objective of the intermediate stage is to teach a trade or occupation and prepare students for the advanced stage.

The intermediate stage covers two or three years, i.e. the 10th and 11th years of schooling and, in certain branches, the 12th year, in which the emphasis is on practical work; the latter concludes with the examination for the Technical and Vocational Proficiency Certificate (CATP).

Unlike the equivalent structure established under the 1979 Law, the intermediate stage now comprises three branches (instead of two, as formerly):

- the vocational branch (see 2.3.24);
- the technician training branch;
- the technical branch.

2.3.7
The **vocational branch** entails practical training in a firm under an apprenticeship contract concurrently with attendance at a technical school, without prejudice to the provisions governing the mixed ('dual') system and the alternative stream involving full-time attendance at a training school (Article 8 of the Law of 4 September 1990).

The vocational branch comprises the following sections:

- agricultural:
- crafts;
- commercial;
- catering and tourism;
- industrial;
- home economics;
- paramedical and social.

The vocational branch offers the most direct and straightforward access to a vocational qualification: the Technical and Vocational Proficiency Certificate. The procedure followed depends on the chamber competent in each case. In some cases, a three-year practical training is provided combined with theoretical training in a technical school for a minimum of eight hours a week. For certain occupations (e.g. institutional management assistant, caterer, horticulturist, farmer) students attend technical school classes full-time for one or two years for theoretical tuition; practical training is given subsequently in a firm.

Finally, for a few occupations the entire three-year course is given at technical school.

On completion of the third year of studies in the vocational branch, students participate in the examination for the Technical and Vocational Proficiency Certificate (CATP).

2.3.8
In the **technician training branch** of the intermediate stage students receive full-time tuition essentially designed to prepare them for studies in the advanced stage. The intermediate stage covers the 10th and 11th years of schooling.

This branch may include the following sections:

- administrative and commercial;
- agricultural;
- arts;
- biology;
- chemistry;
- electrical engineering;
- civil engineering;
- hotel-keeping and tourism;
- mechanical engineering.

2.3.9
Finally, the **technical branch** of the intermediate stage leads to the Upper Secondary Technical School Leaving Certificate *(baccalauréat technique)*.

The course covers two years, i.e. the 10th and 11th years of schooling.

The **technical branch**, intermediate stage, may include the following sections:

- administrative and commercial;
- agricultural;
- arts;
- hotel-keeping and tourism;
- paramedical and social;
- general technical.

The subjects taught

The curriculum of the **intermediate stage** essentially concerns general education and includes the following subjects:

- languages;
- mathematics;
- natural sciences;
- human sciences;
- technology;
- the arts;
- music;
- physical education and sports;
- religious instruction and civic education.

The **intermediate stage** curriculum includes the following:

- general education (religious instruction and ethics; English, French and a third language; mathematics, chemistry and physics; general knowledge of the contemporary world; sports);

- vocational education (varying according to the section chosen);

- practical training (varying according to the section chosen).

NB: The Law of 28 December 1988 regulates access to occupations in the crafts, commercial and industrial sectors, in addition to certain liberal professions. The law also amends Article 4 of the Law of 2 July 1935 regulating the conditions for the award of the Advanced Crafts Diploma. The new text stipulates that for admission to the examination for the Advanced Crafts Diploma, candidates, whatever their nationality, must have successfully passed the examination for the Technical and Vocational Proficiency Certificate or obtained an equivalent qualification and since passing the examination concerned must have exercised the trade in question for at least three years. Candidates must be aged 21 or over.

2.3.10
The advanced stage of technical secondary education

The **advanced stage**, covering two years of full-time tuition (12th and 13th years of schooling) has two branches: the technician training branch and the technical branch.

The **technician training branch** may include the following sections:

- administrative and commercial;
- agricultural;
- arts;
- biology;
- chemistry;
- electrical engineering;
- civil engineering;
- hotel-keeping and tourism;
- mechanical engineering.

The **technical branch** may include the following sections:

- administrative and commercial;
- paramedical and social;
- general technical.

On completion of the advanced stage, students participate in an examination organized at national level. Successful candidates are awarded the Technical Secondary School Leaving Certificate specifying the section, subsection and speciality (for example: agricultural section, horticultural subsection, etc.) regarding which candidates were examined and specifying that the holder possesses the knowledge required to proceed to higher education studies.

2.3.11
The subjects taught

The **advanced stage** curricula include the following:

- for the administrative section:

  general education (German, English, French and general knowledge of the contemporary world);

  science and economics (including, in particular, mathematics, economics and law);

  technology;

  physical education;

  an optional subject (religious instruction and ethics);

- for the general technical section:

  general education (German, English, French, general knowledge of the contemporary world, economic and social sciences, civics);

the sciences (mathematics, data processing, physics and chemistry, general engineering, electricity);

technologies and practical work;

sports;

an optional subject (religious instruction and ethics);

- for the technician training section:

general education (German, English, French, general knowledge of the contemporary world, economic and social sciences, civics, sports);

science and technology (varying in accordance with the subsection chosen);

practical work (varying in accordance with the subsection chosen).

2.3.12

Technical secondary education statistics

	1983/84	1989/90	1990/91
Students	13 983	11 740	11 359
Classes	738	796	779
Average no of students per class	18.95	14.75	14.58
Number of lessons per week	20 964	22 041	22 294
Average number of lessons per student	1.50	1.87	1.96
Average number of lessons per class	28.41	27.68	28.61
Relief from teaching duties (lessons per week)	3 446	4 912	5 561.5
Lessons per student	2.08	2.72	2.9
Students per teacher	15.66	10.90	10.37

Source: Ministry of Education, Annual Report 1991.

2.3.13

Technical secondary school leaving examination

(a) Technical branch

General technical section

	Candidates	Admissions	Rejections
1990/91	134	98 (73%)	36 (27%)
1989/90	142	98 (69%)	44 (31%)
1988/89	122	77 (63%)	45 (37%)

Administrative section

	Candidates	Admissions	Rejections
1990/91	350	237 (68%)	113 (32%)
1989/90	365	267 (73.7%)	96 (26.3%)
1988/89	400	265 (66%)	135 (34%)

(b) Technician training branch

	Candidates	Admissions	Rejections
1990/91	180	145 (81%)	35 (19%)
1989/90	164	133 (81.1%)	31 (18.9%)
1988/89	135	108 (80%)	27 (20%)

2.3.14

Attendance: school year 1991/92

The following table gives a breakdown of the numbers of students attending the various technical schools:

Technical school	Total	Full-time	Con-current courses	First stage	Inter-mediate stage	Voca-tional branch	Tech-nical branch	Ad-vanced stage
Centre	1 808	783	1 025	455	1 335	1 226	109	18
Esch	1 721	1 384	337	812	723	514	209	186
Ettelbruck	969	785	184	407	462	264	198	100
Michel Lucius	1 021	1 021	0	500	362	43	319	159
Arts & Métiers	1 244	1 116	128	331	531	156	375	382
Mathias Adam	839	788	51	658	181	111	70	0
Bonnevoie	963	751	212	511 (42)	452	356	96	0
Nord	842	814	28	483 (161)	278	121	157 (55)	81 (11)
Business management	488	488	0	0	161	0	161	327
Biever	485	472	13	385 (+52)	100	57	43	0
J. Bech	377	323	54	237 (+18)	150	114	36	0
Agricultural	403	316	87	190	199	156	43	14
Hotel trades	233	233	0	0	217	105	112	16
Mersch	174	174	0	146	28	15	13	0
Echternach	346	346	0	215	86	0	86	45
Total	**11 913**	**9 794**	**2 119**	**5 330**	**5 265**	**3 238**	**2 027**	**1 328**

NB: The figures in brackets refer to secondary education students attending the establishment in question.

It will be seen from this table that the number of students in first stage education is lower than the number in the intermediate stage. This phenomenon is due to the transfer of pupils from general secondary education. It may also be noted that the number attending concurrent courses (alternating with work experience) is in decline in relation to those attending full time.

Evaluation and certification

The system of advancement

2.3.15.
At the end of the school year, the class staff council takes decisions regarding the movement to the following year of all students who attended examinations in every branch, with the exception of those in the 13th year advanced stage classes (age 19) and the essentially practical 12th year intermediate stage classes.

Advancement decisions are based on the end-of-year assessment, which takes the following into account:

- marks in the relevant subjects;
- the sum of the coefficients of any fail marks;
- the weighted annual average.

The new system gives the pupil an incentive to make good the deficiencies in his knowledge rather than abandon his studies.

2.3.16
Whilst the possibility of offsetting positive results against weak points on certain conditions already existed for first-stage students, this has now become a general rule. The aim of technical secondary education is essentially to prepare students for working life and, in addition, to enable them to proceed to higher education studies or university. The advancement system takes account of these objectives by applying to each subject a factor of from 1 to 4 depending on its significance in the course as a whole. The rules provide for two sets of criteria – A and B – to allow for differences in students' progress according to whether they continue their studies in the same stream or change to another.

2.3.17
To avoid unnecessary loss of time for students in the event of a change of stream, the advancement system is highly flexible, providing class councils with a degree of latitude in making their decisions. The possibility of offsetting weak points is provided for under both sets of criteria, but is limited to two fail marks under system A and three under system B.

2.3.18
To enable intermediate-stage students and apprentice/students in the vocational branch also to benefit from this provision, the advancement criteria were amended under the Grand-ducal Regulation of 22 February 1984 laying down rules applying to the related classes. It may be noted that under the criteria, applied students and apprentice/students in this branch can offset poor results in two or three subjects, of which one must relate to general theoretical studies and the other one or two to technical theory.

Passage from one stage to the next

2.3.19
Passage from the first to the intermediate stage is authorized on the basis of an assessment report specifying the branches, sections and subsections to which the student can move up, in the light of the requirements of higher level studies.

The report is based essentially on the marks obtained, weighted on a system which takes account of the educational and vocational career envisaged, and if necessary indicates any additional tuition required to enable the student to continue in the chosen stream.

The report is accompanied by an opinion from the class council after hearing the advice of the educational psychology and guidance service.

Certification

2.3.20
First stage
An appropriate certificate is issued to all students successfully completing their compulsory schooling. For students successfully completing the third year of the first stage, known as the pre-specialization year, the certificate bears an endorsement attesting to this fact.

The intermediate stage
On completion of the final year of the intermediate stage, students sit the examination for the **Technical and Vocational Proficiency Certificate** (CATP).

The Manual Proficiency Certificate (CCM) is issued to students who successfully completed only their practical training.

It should be noted that in respect of certain disciplines students now have the option of undertaking their training in two phases, leading initially to the Preliminary Technical and Vocational Certificate (CITP, see 2.3.25) and subsequently to the Technical and Vocational Proficiency Certificate (CATP).

The final examination is held at national level; it includes both theoretical and practical tests. Students' progress in both theoretical and practical work during the final year may be taken into account.

The advanced stage
On completion of the advanced stage of the technician training branch, students participate in a national examination.

Candidates successfully passing this examination are awarded the **Technician's Diploma** specifying the sections and specialized subjects regarding which they were examined and stating that they possess the knowledge required to proceed to technical higher education studies.

On completing the advanced stage of the technical branch, students sit a national examination for the **Technical Secondary School Leaving Certificate**, specifying the section, subsection and specialized subjects regarding which they were examined and stating that they possess the knowledge required to proceed to higher education studies (including university studies).

With respect to access to the regulated professions and occupations and posts in the public sector, qualifications issued in the technician training or technical branches confer the same rights on the holder as the Secondary School Leaving Certificate.

Statistical data

2.3.21
Technical secondary education statistics taken from the Ministry of Education publication, *Demain l'école*.

(a) The Technical and Vocational Proficiency Certificate (CATP)

From 1984/85 to 1988/89 the number of students in technical secondary school (both public and private) declined by 13% (from 15 948 in 1984/85 to 13 849 in 1988/89) whilst the number of students passing the CATP examination rose by 26% to reach 1 157 in 1989.

The ratio between the number of CATPs issued and the number of students rose sharply from 1984 to 1989 (+ 45%).

From 1980 to 1990 the number of CATPs issued per annum in trades within the jurisdiction of the Chamber of Commerce (industrial, civil engineering and commercial trades, decorators, office workers and hotel and catering trades, etc.) rose by 152, or 28%. The annual average number of CATPs issued during this period was 615.

The number of CATPs issued for clerical occupations rose by 67% to 221.

From 1985 to 1989 the number of CATPs issued per annum in trades other than those referred to above varied greatly from year to year (from 383 to 502). No clear trend can be discerned, except that since 1985 the number of CATPs awarded in trades within the jurisdiction of the Chamber of Commerce has always been higher.

Overall, the number of Technical and Vocational Proficiency Certificates and Manual Proficiency Certificates issued to students (including adults) by the Chamber of Trades declined by 30.8% from 1984 to 1989. This decline was caused essentially by the major group of trades in the construction industry, in which the number of students per annum obtaining the CATP or CCM declined by 48.8%.

2.3.22

(b) The Technical Secondary School Leaving Certificate

Number of certificates issued in 1992: 368.

In relation to the annual average number of Secondary School Leaving Certificates issued (751), the annual average number of Technical Secondary School Certificates (368) constitutes an increase of 49% in the number of young people obtaining a qualification of this level by comparison with the period antedating the Law of 1979.

Technical secondary education has fully attained the objective set for its advanced stage: to create a new means of access to higher education studies for students less successful in general secondary education.

2.3.23

(c) The Technician's Certificate

Number of Technician's Certificates issued in 1992: 107.
Increase from 1988 to 1990: 64%.

In relation to the annual average number of young people obtaining the Secondary School Leaving Certificate (751), the 1990 figures correspond to an additional increase of 17.7% in the number holding qualifications of this level and therefore able to enter working life or pursue higher education or university studies in their speciality.

Overall, therefore, technical secondary education has increased the number of young people qualified to proceed to post-secondary studies by 66.7% (49% + 17.7%) while at the same time increasing the number of holders of the CATP; this has been achieved despite a decline in the overall number of students and a growing proportion of foreign students experiencing major problems with the Luxembourg education system.

Proportion of young people leaving the education system with a qualification recognized on the labour-market:

In addition to young people in the appropriate age bracket who obtain Secondary School (15%) or Technical Secondary School (8%) Leaving Certificates, the Technician's Certificate (2%) or the CATP (22%), there are others who obtain a qualification recognized on the labour-market through other training channels (e.g. successful completion of fifth year secondary or technical secondary studies, or studies at the European School in Luxembourg or abroad; via paramedical training, in the armed forces or at colleges of music, etc).

The overall percentage of young people obtaining a qualification recognized on the labour-market cannot be calculated on the basis of statistical data at present available.

The vocational or 'apprenticeship' branch

2.3.24

The Technical and Vocational Proficiency Certificate (CATP)

In Luxembourg apprenticeship is based on the training/work-experience system, comparable to the 'dual system' in Germany. This is the traditional vocational training channel and comprises several sectors, as follows:

1. **The agricultural sector**: This essentially involves training in the agricultural and horticultural trades, theoretical instruction being given at an agricultural technical school and practical training at a horticultural establishment.

2. **The crafts sector**: This covers a considerable variety of trades, such as electricians, electronics technicians, motor vehicle electricians, motor vehicle mechanics, heating installers, sanitary equipment installers, locksmiths, carpenters and cabinet-makers, ironmongers, dressmakers, hairdressers, bakers and pastry cooks, butchers and pork butchers, caterers, potters and ceramists, panel-beaters, coachwork specialists and coachwork painters.

3. **Commercial sector**: This includes salesmen, commercial and administrative personnel, decorators, and travel agents.

4. **The hotel and tourism sector**: This includes waiters and cooks.

5. **The industrial sector**: This covers turners, solderers, electrical engineers, fitters, industrial draughtsmen, winders and electronics technicians. Training in the industrial trades is organized by the Luxembourg steel industry and, in particular, the Esch Technical School and the private Emile Metz Technical School at Dommeldange.

6. **Home economics**: Students wishing to learn a trade under an apprenticeship contract must go in person to the vocational guidance service of the Employment Office, which will provide counselling in the choice of occupation and suggest a choice of training bodies. Apprenticeship contracts must be authorized and registered by the appropriate chamber, which is empowered to authorize employers to train apprentices. Employers must pay apprentices an allowance during the apprenticeship period.

In the vocational branch, the curriculum must include general education material (languages, mathematics, science, etc.) besides theoretical and practical tuition in the field chosen.

The apprenticeship system is administered jointly by the Ministry of Education and the relevant chambers. The vocational branch offers three alternative streams:

CEDEFOP

- the **'alternating' stream** (training alternating with work experience), which normally runs for three years following the third year of technical secondary school. Theoretical tuition in the classroom is combined with practical training in a firm, varying, for example, from 8 hours in the classroom and 32 in the firm to 20 hours in the classroom and 20 hours in the firm;

- the '**mixed**' **stream,** which consists of either one year of full-time classroom training usually followed by two years on the alternating system, or two years of full-time classroom training followed by one year of combined classroom training and work experience;

- the '**full-time**' **stream,** which usually involves three years of full-time attendance at a training school following the third year of technical secondary education.

Students passing the practical examination are awarded the Certificate of Technical and Vocational Proficiency, which is issued jointly by the relevant chamber and the Ministry of Education.

The CATP is a final leaving qualification: it may be noted, however, that it entitles holders to admission to the advanced stage (sixth year) of technical secondary education (technician training section).

CATP holders can also proceed to studies leading to the Advanced Crafts Diploma in their particular field.

The Preliminary Technical and Vocational Certificate (CITP)
The reform of technical secondary education took account of the fact that certain students possess the capacity to learn the practical aspects of a trade, but are unable to assimilate the related theoretical aspects at the same pace. These students now have the option of undertaking their training in two phases.

The first phase lasts for between two and four years, it being understood that the student has concluded an apprenticeship contract with an employer. Concurrently, students can pursue theoretical instruction at a technical school at their own pace, concentrating on a certain number of theoretical courses which may vary according to their learning capacity. Under this modular system, students can, in the course of time, obtain a unit corresponding to the theoretical section of the Preliminary Technical and Vocational Certificate; for the practical section, a further examination is required.

The CITP attests to the acquisition of a basic training; holders should nevertheless be encouraged to proceed to the second phase leading to the CATP. To this end, students can conclude a normal apprenticeship contract; they may also, on the basis of their qualifications, take a job and attend theoretical courses provided in the context of adult education.

2.3.25

Measures to promote the integration of foreign children

The principle underlying these measures is that at technical secondary level deficiencies arising solely from linguistic problems should not prevent young students from obtaining vocational qualifications. The measures taken include the following:

- the objectives of language teaching will be defined in terms of the real needs of students and the requirements of occupational and social life;
- remedial courses and, in certain cases, courses in spoken Luxembourgish will be organized;
- for the first, intermediate and advanced stages (with the exception of the advanced stage, technical branch) French-speaking and German-speaking streams will be set up in one or more regional centres where this is justified by the number of students enrolled;
- multicultural education material will be incorporated in all existing curricula;
- students will be able to take all examinations in the vocational training sector in either French or German;
- languages as a subject will no longer form part of end-of-course examinations, except for clerical occupations and salesmen (spoken language).

2.3.26

The trend in the number of students holding apprenticeship contracts and concurrently enrolled in technical schools for theoretical tuition

Year	Number of students CATP + CITP (CCM)	Share of total school population at post-primary level (%)
1977/78	3 105	14.73
1978/79	3 295	14.98
1979/80	3 389	15.09
1980/81	3 634	16.20
1981/82	3 740	16.61
1982/83	3 577	15.50
1983/84	3 519	15.78
1984/85	2 587	11.96
1985/86	2 845	13.57
1986/87[1]	2 759	13.69
1987/88[1]	2 735	13.82
1988/89[1]	2 577	13.09
1989/90[1]	2 233	11.60
1990/91[1]	2 180	11.47

[1] Reference date: 15 October.
Source: MEN.

It will be noted that since 1982/83 a decline has occurred both in the number of students in this type of training and in the share of the total technical secondary school population they represent.

Advanced crafts training

2.3.27
The Advanced Crafts Diploma ('Master Craftsman's' Diploma) is a unique type of qualification following on from the CATP.

The Law of 28 December 1988 regulates access to occupations in the crafts, commercial and industrial sectors and certain liberal professions. It also amends Article 4 of the Law of 2 July 1935 regulating the conditions for the acquisition of the Advanced Crafts Diploma; the text now stipulates that for admission to the examination for the diploma in question, candidates, whatever their nationality, must have successfully passed the apprenticeship final examination or obtained an equivalent qualification and have subsequently exercised the related trade for at least three years. Candidates must be aged 21 or over.

Training leading to the examination for the Advanced Crafts Diploma is organized by the Chamber of Trades.

Candidates may take the examination complete or in separate modules according to the type of training followed.

2.3.28
For admission to the complete examination, which includes both theoretical and practical tests, candidates, who must be holders of the CATP or an equivalent qualification, must have practised the trade in question for three years since obtaining the CATP and be aged 21 or over. Attendance at preparatory courses is not obligatory; however, the two part examination ('splitting'), introduced in 1968, is linked to attendance at preparatory courses spread over three years.

2.3.29
Students successfully passing the examination are awarded the Advanced Crafts Diploma, issued by the Ministry of Education on the basis of a certificate from the Board of Examiners attesting to their success in passing the tests relating to business management, the theory of the trade chosen and the manual proficiency tests. The Director of Vocational Training of the Ministry of Education is responsible for supervising these examinations on behalf of the government.

2.3.30
The Advanced Crafts Diploma, which attests to a given level of knowledge and skills, has two aspects:

- it provides the craftsman who is also a head of firm with the knowledge and skills required to set up and run a business and at the same time constitutes a guarantee of quality work for his clientele;

- it contributes to the training of apprentices, in which the role of the master craftsman is still very important not only in providing theoretical and practical tuition but also in guaranteeing reputability.

Number of candidates enrolled in the business management section

	1987	1988	1989	1990	1991
First year	404	393	447	377	410
Second year	390	380	319	450	299
Third year	266	317	284	259	380

Source: MEN.

The number of candidates participating in examinations in the academic year 1990/91 was as follows:

382 candidates were admitted to the **business management examination**: 314 attended and 245, or 78.03%, passed;

455 candidates were admitted to the **theoretical examination**: 356 attended and 262, or 73.6%, passed;

453 candidates were admitted to the **practical tests**: of the 348 who attended, 269 (77.3%) passed.

Passes: 1986 to 1991

Year	%
1986	63.38
1987	62.71
1988	72.07
1989	71.06
1990	72.49
1991	77.30

Source: MEN.

Post-secondary technical studies

2.3.31
Technical secondary school students usually proceed to the types of post-secondary studies described below.

The Advanced Technician's Certificate (BTS)
2.3.32
The Advanced Technician's Certificate was introduced by the Law of 4 September 1990 on the reform of technical secondary education. The law specifies technical secondary education of an advanced level, lasting for a maximum of two years; the related classes may be attended full-time or part-time.

Holders of the Technician's Diploma, the Technical Secondary School Leaving Certificate or the Secondary School Leaving Certificate may be admitted to these studies.

Tuition is given in certain technical schools and is organized along the lines of technical secondary education: the programme also provides for periods of practical training in a firm.

Candidates may chose between four subsections:

- accountancy and business management;
- international business;
- clerical occupations and office automation;
- cartoon animation.

Successful completion of the second year of studies leads to the Advanced Technician's Certificate; the certificate indicates the candidate's speciality and the grades obtained.

The present situation

	School of Business Management		Arts & Crafts School
1991/92	**Clerical occupations & office automation**	**Accountancy & business management**	**Cartoon animation**
First year	30	64	12
Second year	28	42	8

Source: MEN.

The College of Technology (IST)
2.3.33
The Luxembourg College of Technology was set up by the Law of 21 May 1979. Article 1 of this law stipulates that the college's task is to provide an advanced level of training designed to prepare students for senior technical posts in industry, applied research and the service sector. On its inception, the College of Technology had three departments (electrical technology, civil engineering, mechanical engineering). In 1981/82, the Electrical Technology Department was given a new subsection (applied data processing) which acquired the status of a separate department under the 1984 Regulation. Holders of the Technical Secondary School Leaving Certificate (general section) may be admitted to the first year of these studies.

The following may also be admitted following scrutiny of their **educational record**, subject to conditions laid down by a committee set up for this purpose by the Minister for Education:

- holders of the Secondary School Leaving Certificate or a foreign qualification recognized as equivalent;

- holders of a Technician's Diploma attesting to seven years of technical secondary school studies, or a qualification recognized as equivalent.

The studies last for three years and candidates may chose between four sections:

- electrical engineering (with two specialities: electronics and industrial electrical technology);
- civil engineering;
- mechanical engineering;
- applied data processing.

2.3.34
The College's programme includes:

- general education (languages, knowledge of the contemporary world, political and industrial economics);
- the sciences (mathematics, physics, chemistry, and applied science);
- technologies specific to each subsection;
- guided project work;
- practical laboratory work;
- periods of practical training;
- optional subjects of a technical character.

2.3.35
On completing the third year, students sit an examination for a technician/engineer's certificate, awarded by the College in one of the above disciplines.

The foregoing are final leaving qualifications awarded by the Luxembourg State; students wishing to do so may continue their studies abroad, where certain universities offer special conditions of admission.

In fact, many students, having obtained the technician/engineer's certificate, continue their studies at foreign universities to obtain the Qualified Graduate Engineer's Diploma.

It should be noted that adults may be admitted to first year studies (applied data processing subsection) in the context of adult education provision. The conditions for admission are the same as for full-time tuition.

Student numbers: academic year 1991/92

	First year	Second year	Third year	Total
Data processing	24	20	48	**92**
Electrical engineering	30	47	36	**113**
Civil engineering	32	19	15	**66**
Mechanical engineering	18	15	17	**50**
	104	**101**	**116**	**321**

Source: MEN.

The employment/training scheme organized by the Luxembourg Institute for Banking Studies (IFBL)

2.3.36
This employment/training scheme in the banking sector is intended for holders of the Secondary School or Technical Secondary School Leaving Certificate (administrative section). The scheme, launched in autumn 1989 by the Luxembourg Bankers' Association and its Institute for Banking Studies is one of the few vocational training schemes organized outside the fields of competence of the Ministry of Education and the chambers.

2.3.37
The scheme involves two successive fixed-term contracts, each for one year, between the trainee and the bank. The contracts relate to part-time work, trainees receiving 65% of full pay in accordance with the provisions of the collective agreement in the banking sector. On average, 14 hours per week are devoted to training and 26 hours to work, which involves periods spent in at least three of the bank's key departments. Trainees' practical work is monitored by means of a report book and an oral examination on completion of the contract. Quarterly tests are held to check trainees' progress in acquiring theoretical knowledge. Upgrading courses in languages, accountancy, economics, law and data processing are organized for employees who need them. During the two-year period, trainees attend 33 days of briefings on banking techniques; familiarization with these techniques is based on the self-study principle. The briefings are given by banking-sector personnel trained specially in teaching techniques by the IFBL.

This employment/training scheme is designed to meet the requirements of the banking sector, which is a key industry in the Grand Duchy.

2.4 Continuing training

Legislative framework and objectives

2.4.1
The objectives of **continuing training**, as defined by the Law of 4 September 1990 on technical secondary education, are as follows:

- to help holders of vocational qualifications to extend or broaden the latter or adapt them to technological progress and the changing needs of the economy;

- to offer, to those exercising an activity, whether employees or self-employed, and to the unemployed, an opportunity to prepare for examinations leading to diplomas and certificates recognized by the law on technical secondary education and obtain vocational qualifications via an accelerated training system;

- to extend and supplement, on a proposal by the relevant chamber, practical training given in firms.

The law stipulates that continuing training may be organized by:

- the Ministry of Education;

- the Chambers of Trades, Commerce, etc.;

- local authorities;

- private bodies approved for this purpose by the Minister.

2.4.2
The **Coordinating Committee** submits proposals to the Minister for Education regarding the details of the organization of continuing training. The Committee includes, in addition to the Director of Vocational Training and the Minister's representatives, representatives of the Ministry of Labour, the Ministry of Small Firms and Traders, the Ministry of Agriculture and Wine Growing, the Ministry of Health and the Home Office, in so far as the latter are involved, besides representatives of the competent chambers and representatives of the directors of technical schools.

It is difficult to obtain an overview of the continuing training sector since the activities involved are so disparate. However, the framework established by the Law of 4 September 1990 will first be described, before taking a closer look at the activities of the various chambers and trade associations such as the Luxembourg Bankers' Association.

The Law of 4 September 1990

2.4.3
This law, *inter alia*, set up the **Vocational Training Service**, which enables the Director of Vocational Training to carry out the tasks entrusted to him by law as regards vocational and continuing training.

The law stipulates that continuing training organized by the Ministry must be given in **continuing training centres**.

Subject to a decision by the Minister, continuing training courses can also be provided in technical schools, under the supervision and authority of the director concerned.

These centres may also offer the following:

- practical training courses for extended primary education students;
- guidance and vocational preparation courses for young job-seekers;
- vocational training courses leading to the Preliminary Technical and Vocational Certificate, organized in cooperation with a technical school;
- vocational training, occupational rehabilitation and general education courses for job-seekers and workers threatened with unemployment;
- occupational and functional retraining and rehabilitation courses.

2.4.4
The continuing training centres are subject to the authority of the Director for Vocational Training and his deputy.

The Director for Vocational Training is responsible for ensuring the smooth running of the courses, for their management from the administrative, financial and educational points of view, and for the guidance of students and the evaluation of their progress. All administrative, technical and teaching personnel assigned to the centres, whether on a temporary or permanent basis, are subject to his authority. The Director submits to the Minister such proposals as he thinks necessary or of value for the sound operation of the centres; he aiso submits an annual report on the activities of the centres and relations with the consultative bodies.

He submits proposals to the Minister regarding such agreements with Luxembourg or foreign institutions as may be necessary to attain the objectives of continuing training. Courses are given, according to needs, either by established public service teachers assigned full-time or part-time to the centres, or by part-time teachers.

Psychological and educational guidance is provided by psychologists and community education workers seconded to the centres or recruited as government employees.

Specific measures

2.4.5
In view of the low unemployment rate in Luxembourg, most measures are aimed at specific population groups such as women wishing to re-enter the labour-market, for example.

Training activities of the chambers of trades, commerce, etc.

2.4.6
The Chambers are very active in the area of advanced vocational training; throughout the year, they organize courses, training periods, seminars and conferences to this end. In addition, the OLAP (Office luxembourgeois pour l'accroissement de la productivité — National Office for Productivity Enhancement) offers a continuing training programme.

Sectoral training activities

2.4.7
In the light of their specific needs, certain sectors have set up specially adapted training structures on their own responsibility; an example is the banking sector, which is active in the fields of apprenticeships leading to the CATP, employment/training contracts for certificate holders and continuing training activities.

Continuing training courses organized by the **Luxembourg Institute for Banking Studies** (IFBL) comprise three levels:

General training in banking 1:
This course was launched in 1983; students attend evening classes given by specialists for four hours a week during a 10-week period. The course covers a variety of subjects such as the money markets, instruments of payment and exchange, accounts, credit, securities, data processing, accountancy, law, arithmetic, economics, German, French and English.

This course offers employees a route to advancement recognized by the collective agreement for the banking sector.

General training in banking 2:
This course provides advanced training and follows on from the above; tuition is given in evening classes over a period of six months and covers banking and management techniques (e.g. the international financial context, foreign exchange, auditing, taxation, banking law, efficiency enhancement, etc.).

Specialization:
Occupations in banking are constantly evolving: with this in mind, the IFBL organizes **seminars** on a wide variety of subjects.

3 THE LEGISLATIVE AND FINANCIAL BACKGROUND

3.1 Legislation

The protagonists essentially concerned by technical secondary education are the Ministry of Education, the educational establishments, the two sides of industry and students' parents.

The Ministry of Education

3.1.1
The State, acting through the Ministry of Education, is responsible for:

- the creation of educational establishments, the appointment of their directors and the establishment of their curricula;
- everything concerning the field of teaching and educational methodology: curricula, teaching methods, evaluation and timetabling, are supervised by the Ministry, either directly or through the intermediary of the establishment's directors.

Note: **Paramedical training**
Until recently, paramedical training was organized by the Ministry of Health; under Article 65 of the Law of 4 September 1990, however, competence in this area was transferred to the Ministry of Education.

Educational establishments

3.1.2
In Luxembourg, educational establishments enjoy a degree of autonomy; under the authority of a director appointed by the Ministry of Education, they constitute the second decision-making level. Schools can further increase their autonomy through projects for which the school council (a consultative body comprising representatives of the school's administration, elected members of the teaching staff and parents and students) is responsible.

These school projects, which constitute a factor in decentralization, have the following aims:

- to promote educational initiatives and activities;
- to organize out-of-school activities, especially cultural or sports activities;
- to launch activities designed to facilitate access to vocational training, the transition to working life or re-entry to the labour-market – especially activities involving work experience in firms, or launched in conjunction with a firm or local authority – and initiatives aimed at the development of educational activities.

School projects are submitted to the Centre for the Coordination of School Projects for its opinion; they are approved by the Minister and evaluated. The Centre for the Coordination of School Projects is a financially autonomous legal

CEDEFOP

entity attached to the Ministry of Education. Its purpose is to promote, coordinate, administer and evaluate school projects.

The Centre's Administrative Board comprises three representatives of the Ministry, one representative from each of the Chambers concerned and four representatives of secondary and technical secondary school directors. A government representative attends meetings of the Board in a consultative role.

Social partners

3.1.3
The social partners act primarily through the chambers:

- the Chamber of Commerce (employers in the commercial and industrial sectors);
- the Chamber of Trades (employers and the self-employed in the crafts sector);
- the Chamber of Private Sector Employees (salaried employees in the private sector);
- the Chamber of Labour (manual workers);
- the Chamber of Agriculture (the agricultural, wine-growing and horticultural sectors);
- the Chamber of Officials and Public Sector Employees (this chamber's field of competence extends to all provisions applying to teaching staff).

The chambers intervene at various levels.

(a) In the area of vocational training in general:
Before submission to the legislature, all draft laws and regulations are submitted to the chambers for their opinion; the government takes its decisions on the basis of those opinions.

(b) In the area of apprenticeship:
Since the introduction of the regulated apprenticeship system in 1929, the public authorities have delegated a broad range of legal powers in this area to the chambers.

For example:

- the chambers, together with the employment office (Ministry of Labour) and the Ministry of Education, establish the list of occupations to which the apprenticeship system applies and the duration of the related training;
- the chambers confer and withdraw authorization to train apprentices and fix the conditions which firms must meet to obtain such authorization;
- they draw up standard apprenticeship contracts which are binding on both parties; should either party fail to meet its obligations, the contract becomes null and void;

- they establish training programmes in conjunction with industry and enrol apprentices at technical secondary schools;
- in cases where contracts are cancelled the chamber's agreement is required (in certain cases, the chambers alone have the power to annul contracts);
- the chambers' approval must be sought where contracts are extended;
- the chambers are responsible for the monitoring and supervision of apprenticeships;
- the chambers fix the programmes for end-of-course examinations, transmit proposals to the Minister regarding the membership of the examining boards and issue the Technical and Vocational Proficiency Certificate and the Preliminary Technical and Vocational Certificate.

(c) In the area of technical secondary education:
The chambers play an active role in training within the school system:

- acting through apprenticeship counsellors, they contribute to the synchronization of theoretical and practical training and ensure that the training given, both in the firm and at school, is regularly adapted to technical progress;
- the chambers are represented on the coordination committees (see 3.1.4 below);
- the chambers collaborate in the preparation of theoretical and practical training programmes;
- they may send representatives to attend meetings of class councils.

The make-up of authorities involved at national level

3.1.4
The **Director of Vocational Training** within the Ministry of Education is responsible for the overall supervision of vocational training, end-of-course examinations and advanced level examinations, without prejudice to the powers of the chambers. He is also responsible for the coordination of theoretical and practical training programmes. As head of the Vocational Training Department he is aided by an assistant director and has, in addition, responsibilities in the area of continuing training.

The task of the **apprenticeship counsellors** is to contribute to the ongoing adaptation of vocational training to technical progress through their influence in both firms and schools and their contacts with apprentices and their parents. They also ensure the synchronization of practical and theoretical training programmes.

Through the provision of advice and information, both to the apprentices and the firms involved, the apprenticeship counsellors contribute to the improvement of in-house vocational training.

CEDEFOP

The rules applying to apprenticeship counsellors are established by the Minister for Education through contracts concluded with the chambers.

The **national programme committees**, comprising specialist teachers and representatives of the Ministry, are concerned with questions of general education; in the area of vocational training, however, theoretical and practical training programmes are formulated in collaboration with the Chambers in question. For this purpose, representatives of the chambers may also participate in the work of these committees.

The Minister appoints the members of the national programme committees and approves curricula, training programmes and the related teaching methodologies.

The task of the **Coordinating Committee for Technical Secondary Education** is to advise the Minister regarding all aspects of this type of education and ensure cooperation between schools and firms.

This committee includes representatives of the Ministry, directors of technical secondary education establishments, primary school inspectors, technical school and extended primary education teachers, members of the Centre for Psychological and Educational Guidance, representatives of the chambers and of students' parents. The committee may also call on experts from educational circles and the business world. Its task is to advise the Minister regarding every aspect of this type of education and to ensure cooperation between schools and firms.

The **Coordinating Commmittee for Continuing Vocational Training** includes the Director of Vocational Training and representatives of the Minister, in addition to representatives of the Minister for Labour, the Minister for Small Firms and Traders, the Minister for Agriculture and Wine Growing, the Minister for Health and the Minister for Home Affairs in so far as the latter are concerned, representatives of the chambers concerned and of the directors of technical schools.

The **Government Commission for Advanced Crafts Examinations** is chaired by the Director of Vocational Training and includes four examiners, of whom two are delegated by the Chamber of Trades and two by the Chamber of Labour, in addition to a secretary appointed by the Chamber of Trades (Ministerial Regulation of 28 January 1982).

The tasks of this Commission are as follows:

- to establish a general plan for the organization of the examination;
- to take decisions regarding admission to the examination;
- to invite candidates to participate in the examination at least two weeks in advance of the dates set;
- to coordinate and to control the examination procedures;
- to take decisions regarding the definitive results;
- to take decisions regarding appeals submitted;
- to propose the award of the Advanced Crafts Certificate to candidates successfully passing the examination.

Responsible authorities (Luxembourg)

	Young entrants to work	Higher level training	Continuing training and retraining of adults in work	Training for the unemployed
National	1 3 1 3 1 2 1	1 3 1 3 1 3 1	2 1 3 2 1 2 1 2 1	1 2 1 2 1 1 2
Regional				
Subregional				
Organization/institution	1 4 1	1 3		1

1. Ministry of Education
2. Ministry of labour
3. Social partners
4. Firms/companies
5. National Institute for continuing vocational training
6. Other education institutions

- ☐ Regulation of system
- ☐ Determination of content
- ☐ Assessment and certification
- ☐ Information and guidance

Delivery:

- ☐ Technical colleges
- ☐ Alternance training (technical colleges and companies)
- ☐ In work place only
- ☐ Continuing training centres

3.2 Finance

In Luxembourg public education is provided free: in other words, all costs are defrayed by the central or local authorities.

The following figures on the costs and financing of the Luxembourg education system are drawn from a study begun in 1987 by the OECD, which is confined to public education given in Luxembourg schools and financing by the public authorities, both central and local.

Unit costs (1986-89) for the various levels of education (LFR 1 000, LFR 100 = ECU 2.5)

	1986	1987	1988	1989
Preschool				
Total cost	1 116 056	1 385 842	1 524 133	1 660 243
Cost per pupil	143	166	190	211
Cost per class	2 644	3 039	3 256	3 444
Primary				
Total cost	4 121 423	4 748 821	5 149 319	5 547 663
Cost per pupil	187	211	222	236
Cost per class	2 935	3 389	3 603	3 715
Post-primary				
Cost of secondary education	2 206 703	2 378 697	2 634 497	2 761 593
Cost of technical education	3 049 205	3 240 800	3 525 204	4 039 862
Total cost	5 255 908	5 619 497	6 159 701	6 801 455
Cost per pupil	251	276	308	353
Cost per full-time equivalent	281	310	344	392
Cost per class	4 778	4 959	5 407	5 924
Yearly cost per lesson	161	169	183	202
Weekly cost per lesson	4	4	5	5

Source: MEN.

Share of GDP devoted to education (in thousands of LUF)

Year	Budget	GDP	%
1986	12 268 875	248 000 000	4.94
1987	13 688 965	258 900 000	5.28
1988	14 898 301	280 000 000	5.32
1989	16 363 196	299 600 000	5.46

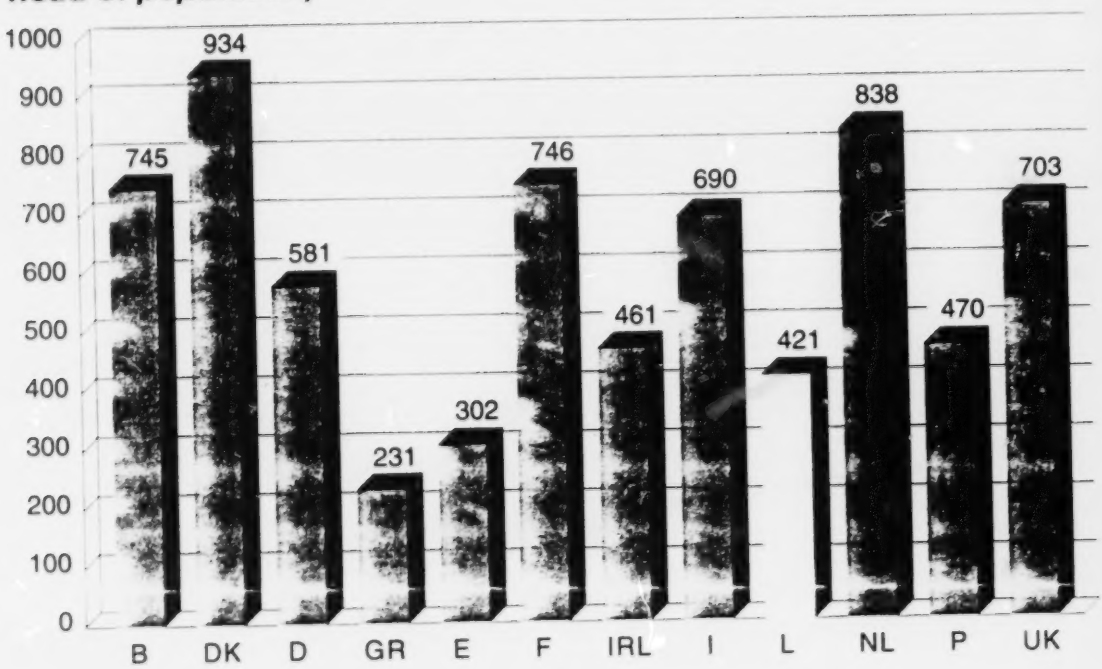
Source: MEN.

These figures show that the volume of resources devoted to education is very high by comparison with other countries.

Students make no contribution to the operating costs of the schools they frequent; they pay only for the necessary materials such as books, etc. In this connection, the Law of 14 July 1986 provides for a school allowance and, in addition, subsidies may be granted to meritorious students particularly in need on account of their material and family situation.

During their **initial in-house training**, trainees are accorded an apprenticeship **allowance** paid by the employer which takes account of the ratio between in-house and classroom training. The Grand-ducal Decree of 29 August 1988 establishes the conditions applying to the various forms of aid and grants for the promotion of apprenticeship to which firms may be entitled.

Public expenditure on education in 1985 (in purchasing power standard–pps, per head of population)



Source: Eurostat: *A Social Portrait of Europe*, 1991.

Continuing training provided in firms is financed by the firms themselves.

State financing of vocational training is effected almost exclusively through budget allocations earmarked for the Ministries concerned. The amounts of these allocations are fixed annually in the national budget.

Ministry of Education Statistics on vocational training (LFR 1 000)

	1990	1991	1992
General expenditure	1 126 210	1 240 974	1 359 782
Educational Film Office – Audiovisual Centre	11 506	11 697	12 509
Educational Innovation & Research Department	3 742	7 933	23 944
Psychological & Educational Guidance Centre	325 641	320 954	406 495
School and out-of-school sports activities	23 702	36 259	47 349
Institute for Educational & Social Studies	0	25 581	46 655
Special education	557 694	580 709	621 801
Adult education	38 873	30 215	36 144
Inspectorate	39 518	38 082	41 574
Preschool & primary education	4 387 673	4 570 658	4 997 800
Secondary education	2 000 875	1 975 269	2 306 018
Technical secondary education	2 715 350	2 681 789	3 076 246
Vocational Training Department	22 251	50 158	53 128
University education	61 880	62 776	66 919
Institute for Educational Studies & Research	28 596	32 864	36 482
College of Technology	142 915	139 932	149 850
Total	**11 486 426**	**11 805 850**	**13 282 696**

4 TRENDS AND PERSPECTIVES

4.1 New challenges

Substantial changes to the Luxembourg education system were brought about by the Law of 22 June 1989 on the reform of secondary education and the Law of 4 September 1990 on the reform of technical secondary education and continuing training.

The objectives of vocational training are those set out in connection with the 1990 reform:

- to adapt the aims of apprenticeship in line with economic and social changes and the challenge of Europe;
- to reduce the school failure rate and provide more young people with vocational qualifications;
- to improve the integration of foreign children into the education system;
- to modify training methods with a view to promoting, to a greater degree than in the past, trainees' autonomy and creativity, their ability to search for and find ways of solving problems, their capacity for cooperation and ability to communicate orally and in writing in the multilingual situation prevailing in Luxembourg;
- to intensify the incorporation of information and communication technologies in curricula, both as a subject and a means of learning.

The reforms already carried out – in addition to those projected – are aimed at meeting these objectives.

Three major trends may be seen at present: moves to combat school failures, in particular by fostering the integration of immigrant children; the adaptation of programmes to the labour-market situation and a tendency to privatize vocational training to ensure greater flexibility.

4.2 Combating school failure

The Luxembourg education system, which is very demanding, produces many school failures. The principal reasons are that the system is overloaded both as regards language teaching and as regards the subject matter taught; in addition, schools have failed to adapt to the specific needs of immigrant children.

To remedy these deficiencies a number of measures have been taken in the area of technical secondary education:

- separate classes using either French or German as the working language have been set up in the first and intermediate stages; in each case, the other of these two official languages is taught as a foreign language using an appropriate methodology;

- the advancement system (from one year to the next) has been modified, introducing the possibility of offsetting poor results in specific areas;

- integration classes have been set up in technical secondary schools;

- the option of undertaking training in two phases has been introduced, with the CITP (Preliminary Technical and Vocational Certificate) leading on to the acquisition of the CATP;

- under the projected reforms, the aim is to integrate extended primary education into technical secondary education and replace the traditional class system by modules or credit units at various levels to enable students to progress at their own pace; this measure should give access to vocational training for young people at present excluded.

4.3 The adaptation of training programmes to the requirements of the labour-market

A large-scale project, called the PROF project, concerns the reform of the content and methodology of initial vocational training in the intermediate and advanced stages.

The project is aimed at developing a working methodology suitable for generalization, for planning, implementing and evaluating changes in the objectives of vocational training. The first step will be to determine the objectives for students completing the sixth and seventh years in the various streams of vocational training; improvements to the training given will be made on the basis of these objectives through the following procedure:

- occupational profiles will be established on the basis of surveys and interviews with experts from Luxembourg firms;
- the objectives of initial training will be determined;
- an outline programme for the various years of vocational training will be drawn up;
- detailed programmes will be formulated (new training content, new methods regarding the acquisition of the key qualifications) for the respective years.

The project involves about 80 teachers and representatives of the business world, who will hold intensive discussions in working groups with a view to reconciling economic and educational requirements. Thanks to the support provided by European research institutes, those involved in the PROF project have access to a European-level research and continuing training network and can call on expert advice. This facility enables lessons to be drawn from foreign experience, adapted to the specific needs of Luxembourg industry, which is oriented towards maintenance rather than production.

The new teaching methods to be developed will prepare young people to organize their apprenticeships and paperwork and evaluate the quality of their work themselves. Tuition in isolated subjects will tend to give way to the acquisition of knowledge and the complex and interconnected forms of know-how that students will need in working life. The perception of apprenticeship and the development of a sense of responsibility will constitute further factors in motivation.

CEDEFOP

4.4 The trend towards greater flexibility in vocational training

The school projects constitute a decentralization measure, providing schools with a greater degree of autonomy; these projects should also enable secondary schools to establish closer contacts with the business world.

Continuing training is at present the subject of a draft law. The major theme of this law is the partial privatization of continuing training through the establishment of a National Continuing Training Institute possessing the status of a public establishment under private law.

This measure essentially concerns training provision for workers in employment, while training for those coming under welfare or anti-unemployment provisions will continue to be the direct responsibility of the Ministry of Education. The aim is to make this form of training more effective and more flexible and adapt it more closely to labour-market conditions.

ANNEXES

Annex 1

Abbreviations

BTS	Brevet de technicien supérieur Advanced Technician's Certificate
CATP	Certificat d'aptitude technique et professionnelle Technical and Vocational Proficiency Certificate
CCM	Certificat de capacité manuelle Manual Proficiency Certificate
CITP	Certificat d'initiation technique et professionnelle Preliminary Technical and Vocational Certificate
CPOS	Centre de psychologie et d'orientation scolaire Psychological and Educational Guidance Centre
CUL	Centre universitaire de Luxembourg Luxembourg University Centre
ECG	Ecole de Commerce et de Gestion Business and Management School
EST	Enseignement secondaire technique Technical secondary education
FBG 1	Formation bancaire générale 1 General course in banking 1
FBG 2	Formation bancaire générale 2 General course in banking 2
IEES	Institut d'études éducatives et sociales Institute for Educational and Social Studies
IFBL	Institut de formation bancaire Luxembourg Luxembourg Institute for Banking Studies
ISERP	Institut supérieur d'études et de recherches pédagogiques Institute for Educational Studies and Research
IST	Institut supérieur de technologie College of Technology
LT	Lycée technique Technical School
LTAM	Lycée technique des Arts et Métiers Arts and Crafts School
MEN	Ministère de l'Education nationale Ministry of National Education
OLAP	Office luxembourgeois pour l'accroissement de la productivité National Office for Productivity Enhancement
Statec	Service central de la statistique et des études économiques Central Office for Statistics and Economic Studies

ANNEX 2

Addresses

Ministère de l'éducation nationale
29, rue Aldringen
L-2926 Luxembourg
Tel. 352 478 51 41
Fax 352 478 51 46

Service de la formation professionnelle
29, rue Aldringen
L-2926 Luxembourg
Tel. 352 478 52 30
Fax 352 478 52 64

Centre de psychologie et d'orientation scolaire
280, route de Longwy
L-1940 Luxembourg
Tel. 352 45 64 64
Fax 352 45 45 44

Chambre de commerce de Luxembourg
7, rue Alcide de Gasperi
L-1615 Luxembourg
Tel. 352 43 58 53
Fax 352 43 83 26

Chambre des employés privés
13, rue de Bragance
L-1255 Luxembourg
Tel. 352 44 40 91
Fax 352 45 94 40

Chambre d'agriculture
261, route d'Arlon
L-8011 Strassen
Tel. 352 31 38 76
Fax 352 31 38 75

Chambre de travail
18, rue Auguste Lumière
L-1950 Luxembourg
Tel. 352 48 86 16
Fax 352 48 06 14

Chambre des métiers
2, Circuit de la Foire internationale
L-1347 Luxembourg
Tel. 352 42 67 67-1
Fax 352 42 67 87

Annex 3

Relevant legislation

Secondary education
The Law of 10 May 1968 on the reform of the education system (Section VI: secondary education).

Grand-ducal Regulation of 15 November 1975 on the movement to the following year of students completing the third year of secondary education and their admission to the fourth year.

Grand-ducal Regulation of 17 March 1983 amending the Grand-ducal Regulation of 9 March 1971 on the organization of the secondary school leaving examination (new system) as amended.

Law of 22 June 1989 amending Section IV (secondary education) of the amended Law of 10 May 1968 on the reform of the education system.

Technical secondary education
Law of 21 May 1979 on the organization of vocational training and technical secondary education, as amended by the Law of 30 May 1984.

Law of 4 September 1990 on the reform of technical secondary education and continuing vocational training.

Grand-ducal Regulation of 8 February 1991 laying down the criteria for advancement to the following year in the first and intermediate stages, technical branch, and the advanced stage of technical secondary education.

Grand-ducal Regulation of 29 November 1991 on the organization of training courses leading to the acquisition of the Advanced Technician's Certificate.

Grand-ducal Regulation of 14 December 1982 on the organization of the intermediate stage, technical branch, of technical secondary education.

Grand-ducal Regulation of 11 August 1982 specifying the trades and occupations for which training is provided in the various branches and streams of the intermediate stage of technical secondary education and the qualifications required for admission to those trades and occupations.

Grand-ducal Regulation of 22 February 1984 on the organization of the intermediate stage, vocational branch, of technical secondary education.

Grand-ducal Regulation of 28 June 1984 on the organization of training leading to the acquisition of the Manual Proficiency Certificate (CCM).

Grand-ducal Regulation of 18 April 1988 specifying:
(i) the trades and occupations in which apprenticeships may be organized to lead to the acquisition of the Manual Proficiency Certificate (CCM);
(ii) the organization of the courses designed to prepare students for the acquisition of the aforementioned certificate.

CEDEFOP

Grand-ducal Regulation of 10 March 1983 on the organization of the final examination in the technician training branch (advanced stage), and the general technical and administrative sections (technical branch) of technical secondary education.

Grand-ducal Regulation of 18 May 1987 on the organization of the final examination in the technician training branch (advanced stage), in the electronics, engineering, chemistry, civil engineering and arts sections.

Admission to secondary and technical secondary education
Grand-ducal Regulation of 13 June 1980 on the organization of the entrance examination for the assessment year of secondary education.

Grand-ducal Regulation of 13 June 1980 on the organization of the entrance examination for the 1st year of technical secondary education.

Ministerial Order of 21 November 1980 instituting collaboration between the technical secondary schools and the extended primary education centres.

University courses
The Law of 11 February 1974 establishing rules in respect of the Luxembourg University Centre.

Grand-ducal Regulation of 2 June 1972, as amended by the Grand-ducal Regulation of 17 August 1983, on the organization of university courses and teaching programmes and the details of examinations.

Law of 18 June 1969 as amended by the Law of 20 April 1970 on higher education and the approval of foreign higher education qualifications.

Grand-ducal Regulation of 25 October 1984 on the organization of a short course in businesss management at the Department of Law and Economics of Luxembourg University Centre.

Teacher training
Law of 6 September 1983 on:
(i) the reform of teacher training;
(ii) the establishment of the Institute for Educational Studies and Research;
(iii) changes to the organization of preschool and primary education.

Grand-ducal Regulation of 27 July 1987 amending the Grand-ducal Regulation of 26 October on the selection of candidates and candidates for admission to the Institute for Educational Studies and Research.

Law of 28 April 1992 amending the conditions for admission to teacher training courses.

Training of technician/engineers
Law of 21 May 1979 on the establishment of a College of Technology.

Grand-ducal Regulation of 18 January 1985 amending the Grand-ducal Regulation of 8 June 1983 on the organization of studies at the College of Technology, the conditions for admission to the various years of study and the details and programmes of the examinations.

Grand-ducal Regulation of 16 August 1984 establishing an applied information technology section at the College of Technology.

Grand-ducal Regulation of 20 September stipulating the conditions for admission to the first year of study at the College of Technology for holders of a qualification other than the Technical Secondary School Leaving Certificate.

Apprenticeship and advanced crafts training
Grand-ducal Decree of 8 October 1945 amending the Law of 5 January 1929 on apprenticeship.

Law of 2 July 1935 regulating the conditions for the acquisition of the Advanced Craft Certificate.

Law of 28 December 1988 regulating access to occupations in the crafts, commercial and industrial sectors and to certain liberal professions, and amending Article 4 of the Law of 22 July 1935 regulating the conditions for the acquisition of the Advanced Craft Certificate.

Other legislation
Law of 16 April 1979 establishing the staff regulations for civil servants.

Law of 19 July 1991 on the organization of an adult education service; this law also establishes the legal status of the Luxembourg Language Centre.

Grand-ducal Regulation of 23 May 1991 regulating the procedure to be followed by school councils in secondary and technical secondary schools.

Grand-ducal Regulation of 10 August 1991 specifying the details regarding the operation of the Centre for the Coordination of School Projects.

Annex 4

Glossary

The following brief list of terms and explanations on how they have been used in this report, has been drawn up by the author. It makes no claim to be an authoritative terminological work. In this context we would refer the reader to CEDEFOP's on-going activities in the field of terminology and vocational training. Those interested in this work should contact Frau Linshöft-Stiller in CEDEFOP.

Advanced crafts training (Maîtrise/Meisterbrief)
Training required for access to occupations in the crafts, commercial, and industrial sectors in addition to certain liberal professions.

Employment/training scheme (banking sector) (Emploi-formation)
This scheme involves a two-year apprenticeship in the banking sector, combining practical work in a financial institution with theoretical training. The scheme is organized by the Luxembourg Institute for Banking Studies and is outside the jurisdiction of the Ministry of Education.

Lead-in classes (Classes d'attente)
An experiment under way in the city of Luxembourg in which the first year of primary education is spread over two years.

PROF project
This is a major project at present under way which concerns the reform of the content and methods of initial vocational training in the intermediate and advanced stages on the basis of occupational profiles required by the labour-market.

Reception classes (Classes d'accueil)
Classes for children joining the Luxembourg education system half-way.

School project (Projet d'établissement)
School projects are plans formulated by individual schools. They form part of a trend towards decentralization.

Secondary school teacher (professeur)
The *professeur* teaches in secondary or technical secondary schools.

Short course (Cycle court)
A two-year higher education course in business management offered by the Luxembourg University Centre.

Special education classes (Classes spéciales)
Primary level classes for children with learning problems.

University courses (Cours universitaire)
In the absence of full-length university courses, first-year studies in various disciplines are offered by the Luxembourg University Centre.

Upper Secondary Technical School leaving certificate (baccalauréat technique)

Annex 5

Bibliography

La démographie du Luxembourg. Passé, présent et avenir
Rapport au Président du Gouvernement du Luxembourg
Calot, G.
Luxembourg, 1978

L'école luxembourgeoise face au défi de l'intégration des enfants d'origine étrangère
MEN, 1991

Notre enseignement primaire
in Publications mosellanes,
Diederich, V.
Mémorial 1989, pp. 337-368

Le rôle des partenaires sociaux dans la formation professionnelle initiale et continue
Le cas du Luxembourg
CEDEFOP, 1988

Description of the vocational training system – Luxembourg
CEDEFOP, 1979

La formation professionnelle au Luxembourg
Document Script,
MEN, 1991

Aperçu sur le système d'enseignement luxembourgeois
MEN, 1987

Étude sur les qualifications en fin de scolarité obligatoire et de formation professionnelle
Situation au Grand Duché de Luxembourg
Portante, D., 1985

Demain l'école
Le système éducatif luxembourgeois face au changement
MEN, 1992

Annuaire statistique
Statec, 1991

Enquête sur les habitudes et besoins langagiers au Grand Duché de Luxembourg
MEN, 1985

Coexistence conflictuelle ou harmonieuse
in Cahiers luxembourgeois
Hartmann-Hirsch, C.
Luxembourg, 1988

CEDEFOP

CEDEFOP – European Centre for the Development of Vocational Training

Vocational education and training in Luxembourg

José Frideres-Poos,
Jean Tagliaferri,
Ministry of Education
Jeff Kintzelé
sociologist, external consultant

Luxembourg: Office for Official Publications of the European Communities

1995 – II, 70 pp. – 21.0 x 29.7 cm

ISBN 92-826-8172-6

Price (excluding VAT) in Luxembourg: ECU 14

Venta y suscripciones • Salg og abonnement • Verkauf und Abonnement • Πωλησεις και συνδρομες
Sales and subscriptions • Vente et abonnements • Vendita e abbonamenti
Verkoop en abonnementen • Venda e assinaturas

BELGIQUE / BELGIE

Moniteur belge / Belgisch staatsblad
Rue de Louvain 42 / Leuvenseweg 42
1000 Bruxelles / 1000 Brussel
Tel. (02) 512 00 26
Fax (02) 511 01 84

Jean De Lannoy
Avenue du Roi 202 / Koningslaan 202
1060 Bruxelles / 1060 Brussel
Tel. (02) 538 51 69
Telex 63220 UNBOOK B
Fax (02) 538 08 41

Autres distributeurs /
Overige verkooppunten

Librairie européenne / Europese boekhandel
Rue de la Loi 244 / Wetstraat 244
1040 Bruxelles / 1040 Brussel
Tel. (02) 231 04 35
Fax (02) 735 08 60

DANMARK

J. H. Schultz Information A/S
Herstedvang 10-12
2620 Albertslund
Tlf. 43 63 23 00
Fax (Sales) 43 63 19 69
Fax (Management) 43 63 19 49

DEUTSCHLAND

Bundesanzeiger Verlag
Breite Straße 78-80
Postfach 10 80 34
50445 Köln
Tel. (02 21) 20 29-0
Fax (02 21) 202 92 78

GREECE / ΕΛΛΑΔΑ

G.C. Eleftheroudakis SA
International Bookstore
Nikis Street 4
10563 Athens
Tel. (01) 322 63 23
Telex 219410 ELEF
Fax 323 98 21

ESPAÑA

Boletín Oficial del Estado
Trafalgar, 27-29
28071 Madrid
Tel. (91) 538 22 95
Fax (91) 538 23 49

Mundi-Prensa Libros, SA
Castelló, 37
28001 Madrid
Tel. (91) 431 33 99 (Libros)
431 32 22 (Suscripciones)
435 36 37 (Dirección)
Telex 49370 MPLI E
Fax (91) 575 39 98

Sucursal

Librería Internacional AEDOS
Consejo de Ciento, 391
08009 Barcelona
Tel. (93) 488 34 92
Fax (93) 487 76 59

Librería de la Generalitat de Catalunya
Rambla dels Estudis, 118 (Palau Moja)
08002 Barcelona
Tel. (93) 302 68 35
Tel. (93) 302 64 62
Fax (93) 302 12 99

FRANCE

Journal officiel
Service des publications des Communautés européennes
26, rue Desaix
75727 Paris Cedex 15
Tel. (1) 40 58 77 01/31
Fax (1) 40 58 77 00

IRELAND

Government Supplies Agency
4-5 Harcourt Road
Dublin 2
Tel. (1) 66 13 111
Fax (1) 47 80 645

ITALIA

Licosa SpA
Via Duca di Calabria, 1/1
Casella postale 552
50125 Firenze
Tel. (055) 64 54 15
Fax 64 12 57
Telex 570466 LICOSA I

GRAND-DUCHÉ DE LUXEMBOURG

Messageries du livre
5, rue Raiffeisen
2411 Luxembourg
Tel. 40 10 20
Fax 49 06 61

NEDERLAND

SDU Overheidsinformatie
Externe Fondsen
Postbus 20014
2500 EA 's-Gravenhage
Tel. (070) 37 89 880
Fax (070) 37 83 783

PORTUGAL

Imprensa Nacional
Casa da Moeda, EP
Rua D. Francisco Manuel de Melo, 5
1092 Lisboa Codex
Tel. (01) 387 20 00 / 387 43 25
Fax (01) 384 01 32

Distribuidora de Livros Bertrand, Ld.ª

Grupo Bertrand, SA
Rua das Terras dos Vales, 4-A
Apartado 37
2700 Amadora Codex
Tel. (01) 49 59 050
Telex 15798 BERDIS
Fax 49 60 255

UNITED KINGDOM

HMSO Books (Agency section)
HMSO Publications Centre
51 Nine Elms Lane
London SW8 5DR
Tel. (071) 873 9090
Fax 873 8463
Telex 29 71 138

ÖSTERREICH

Manz'sche Verlags- und Universitätsbuchhandlung
Kohlmarkt 16
1014 Wien
Tel. (1) 531 610
Telex 112 500 BOX A
Fax (1) 531 61-181

SUOMI / FINLAND

Akateeminen Kirjakauppa
Keskuskatu 1
PO Box 218
00381 Helsinki
Tel. (0) 121 41
Fax (0) 121 44 41

NORGE

Narvesen Info Center
Bertrand Narvesens vei 2
PO Box 6125 Etterstad
0602 Oslo 6
Tel. (22) 57 33 00
Telex 79668 NIC N
Fax (22) 68 19 01

SVERIGE

BTJ AB
Traktorvägen 13
22100 Lund
Tel. (046) 18 00 00
Fax (046) 18 01 25
30 79 47

ICELAND

BOKABUD LARUSAR BLONDAL
Skolavordustig, 2
101 Reykjavik
Tel. 11 56 50
Fax 12 55 60

SCHWEIZ / SUISSE / SVIZZERA

OSEC
Stampfenbachstraße 85
8035 Zürich
Tel. (01) 365 54 49
Fax (01) 365 54 11

BALGARIJA

Europress Klassica BK Ltd
66, bd Vitosha
1463 Sofia
Tel./Fax 2 52 74 75

ČESKÁ REPUBLIKA

NIS CR
Havelkova 22
130 00 Praha 3
Tel. (2) 24 22 94 33
Fax (2) 24 22 14 82

HRVATSKA

Mediatrade
P. Hatza 1
41000 Zagreb
Tel. (041) 43 03 92

MAGYARORSZÁG

Euro-Info-Service
Honvéd Európa Ház
Margitsziget
1138 Budapest
Tel./Fax 1 111 60 61
1 111 62 16

POLSKA

Business Foundation
ul. Krucza 38/42
00-512 Warszawa
Tel. (2) 621 99 93, 628-28-82
International Fax&Phone
(0-39) 12-00-77

ROMANIA

Euromedia
65, Strada Dionisie Lupu
70184 Bucuresti
Tel./Fax 1-31 29 646

RUSSIA

CCEC
9-60 Ietiva Oktiabria Avenue
117312 Moscow
Tel./Fax (095) 135 52 27

SLOVAKIA

Slovak Technical Library
Nm. slobody 19
812 23 Bratislava 1
Tel. (7) 5220 452
Fax (7) 5295 785

CYPRUS

Cyprus Chamber of Commerce and Industry
Chamber Building
38 Grivas Dhigenis Ave
3 Deligiorgis Street
PO Box 1455
Nicosia
Tel. (2) 449500/462312
Fax (2) 458630

MALTA

Miller distributors Ltd
PO Box 25
Malta International Airport
LQA 05 Malta
Tel. 66 44 88
Fax 67 67 99

TÜRKIYE

Pres AS
Istiklal Caddesi 469
80050 Tunel-Istanbul
Tel. 0(212) 252 81 40 / 251 91 96
Fax 0(212) 251 91 97

ISRAEL

ROY International
PO Box 13056
41 Mishmar Hayarden Street
Tel Aviv 61130
Tel. 3 496 108
Fax 3 648 60 39

EGYPT
MIDDLE EAST

Middle East Observer
41 Sherif St.
Cairo
Tel./Fax 39 39 732

UNITED STATES OF AMERICA
CANADA

UNIPUB
4611-F Assembly Drive
Lanham, MD 20706-4391
Tel. Toll Free (800) 274 4888
Fax (301) 459 0056

CANADA

Subscriptions only
Uniquement abonnements

Renouf Publishing Co. Ltd
1294 Algoma Road
Ottawa, Ontario K1B 3W8
Tel. (613) 741 43 33
Fax (613) 741 54 39
Telex 0534783

AUSTRALIA

Hunter Publications
58A Gipps Street
Collingwood
Victoria 3066
Tel. (3) 417 5361
Fax (3) 419 7154

JAPAN

Kinokuniya Company Ltd
17-7 Shinjuku 3-Chome
Shinjuku-ku
Tokyo 160-91
Tel. (03) 3439-0121

Journal Department
PO Box 55 Chitose
Tokyo 156
Tel. (03) 3439-0124

SOUTH-EAST ASIA

Legal Library Services Ltd
Orchard
PO Box 05523
Singapore 9123
Tel. 73 04 24 1
Fax 24 32 47 9

SOUTH AFRICA

Safto
5th Floor, Export House
Cnr Maude & West Streets
Sandton 2146
Tel. (0-11) 883-3737
Fax (011) 883-6569

AUTRES PAYS
OTHER COUNTRIES
ANDERE LÄNDER

Office des publications officielles des Communautés européennes
2, rue Mercier
2985 Luxembourg
Tel. 499 28-1
Telex PUBOF LU 1324 b
Fax 48 85 73/48 68 17

BEST COPY AVAILABLE

European Centre for the Development of Vocational Training
Jean Monnet House, Bundesallee 22, **D-10717 Berlin**
Tel.: 49-30 + 88 41 20; Fax: 49-30 + 88 41 22 22; Telex 184 163 eucen d

CEDEFOP

04 05 16

HX-81-93-834-EN-C

Price (excluding VAT) in Luxembourg: ECU 14

ISBN 92-826-8172-6

OFFICE FOR OFFICIAL PUBLICATIONS
OF THE EUROPEAN COMMUNITIES
L-2985 Luxembourg

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

NOTICE

REPRODUCTION BASIS

This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").